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No. VI.

Catalogue

of the

Pathological Museum

of the

University of Manchester

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Victoria University
Pathological Museum

CATALOGUE

OF THE

Pathological Museum

OF THE

University of Manchester

BY

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PREFACE.

The collection of specimens which formed the basis of the Pathological Museum, came originally from the Manchester Royal School of Medicine. Of these specimens a descriptive catalogue was drawn up in 1844 by the curator, Dr. William Smith. This catalogue consisted of a list of specimens, with a few descriptive details appended; but it was never published in book form.

About thirty years after this catalogue was written, the collection came into the possession of Owens College. Subsequently the work of giving full descriptive details, including where necessary an account of the microscopic structure of the specimens, was undertaken by Professors Dreschfeld and Young.

Professor Delépine continued this work, and compiled a list of the mounted specimens, classifying them according to their pathological lesions. He also wrote a full description of the specimens of bone lesions, and of a considerable number of the specimens illustrating kidney disease. In describing the specimens of bone disease he had the assistance of Dr. J. G. Clegg, and of Dr. Craven Moore, then demonstrator of pathology, in working at the specimens of renal disease.

In the preparation of the present catalogue much advantage has been derived from Professor Delépine's work, and the descriptions referred to have been incorporated. The catalogue now includes an account of all the specimens in the museum up to the end of March, 1906. Amongst these are the specimens which had been prepared during recent years in the department of surgery by Professor G. A. Wright and Mr. C. Roberts.

In the arrangement of this catalogue, I have adopted, with some modifications, the decimal system of classification which has been applied to this purpose by Dr. M. E. Abbott, curator of the Pathological Museum, McGill University, Montreal. The arrangement of the descriptions in chapters, according to the schedule given at the beginning of the volume, does away with the necessity of numbering the pages, and makes it easy to incorporate in the future the descriptions of specimens added to the Museum. The volume

has also been bound in such a way that additional pages can be easily interpolated.

The decimal numbers are merely descriptive. The *anatomical* description of the specimen is indicated by the numbers in front of the colon, and the nature of the *pathological* lesion or lesions illustrated, is given by the numbers following the colon. In addition to these, each specimen which is completely described, has three other numbers:—(1) The Museum number (M.N.), which indicates the individual preparation as it is entered in the continuous record of the specimens. (2) The number in the Day Book (D.B.), which refers to the rough record of all the specimens which come into the department. (3) The Autopsy number (P.M.M. or S.), which gives the reference to the records of the pathological department of the Royal Infirmary.

A Card Catalogue has been drawn up on the basis of the descriptive numbers, and gives ready means of finding specimens either by the anatomical or by the pathological numbers.

I have to acknowledge gratefully the assistance of the members of the Pathological Museum Committee, Professors Dreschfeld and Wright. I beg also to thank Professor Young for much help in describing the specimens, and Dr. Hill Griffith, for preparing the descriptions of the specimens illustrating the pathology of the Eye.

The preparation of the catalogue has occupied the whole staff of the department since November, 1904, and to the members of it I am deeply indebted for ungrudging help. Professor Walker Hall, while he was still demonstrator of Pathology, laid aside his research and devoted all his time to this work. His successor, Dr. Mair, has arranged the collection of histological slides. Mr. C. Roberts has given invaluable assistance in preparing and describing the specimens illustrating surgical pathology.

Dr. Anderton, demonstrator of Morbid Anatomy, has worked unceasingly during the whole time, and to his help, more than to anything else, it is due that the completion of the work has been possible.

J. Lorrain Smith.

14th July, 1906.

CLASSIFICATION.

ANATOMICAL CLASSIFICATION.

10 Circulatory System

11 Pericardium

12 Heart
- 1 Myocardium

13 Endocardium: Valves and Orifices
- 1 Mitral
- 2 Aortic
- 3 Tricuspid
- 4 Pulmonary

14 Arteries
- 1 Aorta
- 2 Pulmonary
- 3 Cerebral
- 4 Coronary
- 5 Others in thorax
- 6 Others in abdomen
- 7 Arteries in limbs
- 8 Arteries in head and neck

15 Veins
- 1 Venae cavae
- 2 Pulmonary
- 3 Cerebral: dural
- 4 Coronary
- 5 Portal
- 6 Other veins

16 Capillaries

17 Blood: Blood-clot

20 Respiratory System

21 Nares
- 1 Accessory sinuses
- 2 Naso-pharynx

22 Larynx

23 Trachea

24 Bronchus
- 1 Peribronchial tissue

25 Lungs

26 Pleura and Subpleural tissue

30 Digestive System

31 Mouth
- 1 Lips
- 2 Tongue
- 3 Salivary glands
- 4 Hard palate
- 5 Teeth

32 Pharynx
- 1 Soft palate
- 2 Fauces
- 3 Tonsils
- 4 Uvula

33 Oesophagus

34 Stomach

35 Intestine
- 1 Duodenum
- 2 Jejunum and Ileum
- 3 Appendix and Cæcum
- 4 Colon
- 5 Rectum
- 6 Anus

36 Liver
- 1 Gall bladder
- 2 Bile duct

37 Pancreas
- 1 Duct

38 Peritoneum: Mesentery
- 1 Omentum
- 2 Retroperitoneal tissue
- 3 Pelvic peritoneum
- 4 Pelvic retroperitoneal tissue

40 Lymphatic System and Ductless Glands

41 Lymphatic vessels

42 Lymphatic follicles

43 Lymphatic glands
- 1 Cervical
- 2 Axillary
- 3 Inguinal
- 4 Mediastinal: bronchial
- 5 Mesenteric: abdominal
- 6 Retroperitoneal

44 Thymus

45 Spleen

46 Thyroid

47 Suprarenal

50 Urinary System and Male Generative Organs

51 Kidney and pelvis
- 1 Pelvis and calyces

52 Ureter

53 Bladder

54 Prostate

55 Vesiculæ seminales
- 1 Vas deferens: spermatic cord

56 Testis
- 1 Epididymis
- 2 Tunica vaginalis

57 Urethra

58 Penis

59 Scrotum

60 Female Generative Organs

61 Vulva

62 Vagina

63 Uterus
- 1 Cervix uteri
- 2 Corpus uteri

64 Oviducts

65 Ovary

66 Broad ligament
- 1 Parovarium

67 Gravid uterus
- 1 Puerperal uterus

68 Ovum
- 1 Fœtus
- 2 Membranes: placenta

69 Mamma

70 Nervous System

71 Dura mater

72 Pia-arachnoid mater

73 Brain
- 1 Cerebrum
- 2 Cerebellum
- 3 Pons
- 4 Medulla
- 5 Pituitary body
- 6 Ventricles

74 Spinal cord
- 1 Cauda equina

75 Nerves

76 Sympathetic system

77 Ear
- 1 External ear
- 2 Middle ear
- 3 Internal ear

78 Eye
- 1 Retina
- 2 Iris: choroid
- 3 Sclerotic: cornea
- 4 Lens
- 5 Vitreous

80 Tegumentary, etc. System

81 Skin, Hair, Nails

82 Cellular tissues
- 1 Fascia
- 2 Fatty tissue

83 Muscle
- 1 Tendon
- 2 Tendon sheath
- 3 Diaphragm

84 Bursa

85 Cartilage and Perichondrium

86 Bone marrow

87 Periosteum

88 Ligament

89 Synovial membrane

90 Osseous System

91 Bones of Cranium

92 Bones of Face
- 1 Superior maxilla
- 2 Inferior maxilla

93 Vertebræ

94 Sternum
- 1 Hyoid

95 Ribs

96 Upper extremity
- 1 Clavicle
- 2 Scapula
- 3 Shoulder joint
- 4 Humerus
- 5 Elbow joint
- 6 Radius: ulna
- 7 Wrist joint
- 8 Small bones of hand and wrist
- 9 Small joints of hand and wrist

97 Lower extremity
- 1 Os innominatum
- 2 Hip joint
- 3 Femur
- 4 Knee joint
- 5 Patella
- 6 Tibia; fibula
- 7 Ankle joint
- 8 Small bones of foot
- 9 Small joints of foot

98 Pelvis

REGIONAL AREAS.—*continued*

08 Lower extremity
- 1 Hip: buttocks
- 2 Thigh
- 3 Knee; popliteal
- 4 Leg
- 5 Ankle

09 Foot
- 1 Sole: heel
- 2 Dorsum
- 3 Great toe
- 4 Toe

00 Regional Areas

01 Head
- 1 Scalp
- 2 Occipital
- 3 Temporal

02 Face
- 1 Forehead
- 2 Eyelids
- 3 Orbit
- 4 Nose
- 5 Cheek
- 6 Parotid region
- 7 Chin
- 8 Sub-maxillary

03 Neck
- 1 Mesial anteriorly
- 2 Episternal
- 3 Anterior triangle
- 4 Supraclavicular
- 5 Posterior triangle
- 6 Vertebral (cervical)

04 Thorax
- 1 Sternal
- 2 Infraclavicular
- 3 Mammary
- 4 Inframammary
- 5 Axillary
- 6 Scapular
- 7 Vertebral (dorsal)

05 Abdomen
- 1 Epigastrium
- 2 Umbilical
- 3 Hypogastrium; pubic
- 4 Lumbar
- 5 Iliac
- 6 Inguinal
- 7 Perineum: sacro-coccygeal region
- 8 Vertebral (lumbo-sacral)
- 9 Pelvic

06 Upper extremity
- 1 Shoulder
- 2 Upper arm
- 3 Elbow
- 4 Forearm
- 5 Wrist

07 Hand
- 1 Palm
- 2 Dorsum
- 3 Thumb
- 4 Finger

PATHOLOGICAL CLASSIFICATION.

:10 Congenital and Developmental Abnormalities

:11 Malposition

:12 Malformation
- 1 Absence of parts
- 2 Suppression of parts
- 3 Persistence of fœtal structures
- 4 Defective closure
- 5 Excess in size
- 6 Stenosis

:13 Excess in number

:14 Teratoma

:15 Fœtal disease

:16 Ectopic gestation
- 1 Abortion

:17 Defective development (after birth)
- 1 Hypoplasia

:20 Mechanical, etc., Lesions

:21 Laceration : Fracture
- 1 Fracture with union
- 2 Fracture with mal-union
- 3 Fracture without union
- 4 Fracture comminuted
- 5 Fracture with necrosis
- 6 Fracture spontaneous
- 7 Rupture

:22 Perforation : Fistula

:23 Dislocation : Displacement
- 1 With fixation
- 2 Hernia
- 3 Intussusception
- 4 Volvulus
- 5 Torsion

:24 Deformity
- 1 With fixation

:25 Obstruction
- 1 Stenosis (not cicatricial)

:26 Compression
- 1 Collapse
- 2 Strangulation

:27 Dilatation : Distension
- 1 Local, diverticulum. aneurysm
- 2 General
- 3 Emphysema

:28 Foreign body
- 1 Loose body
- 2 Retained structures

:29 Chemical and Thermal lesions
- 1 Chemical, corrosive
- 2 Thermal

:30 Circulatory Disturbances

:31 Anæmia

:32 Hyperæmia
- 1 Active
- 2 Passive

:33 Hæmorrhage
- 1 Single
- 2 Multiple

:34 Thrombus
- 1 Simple
- 2 Infective

:35 Embolus
- 1 Simple
- 2 Infective

:36 Infarct
- 1 Simple
- 2 Infective

:37 Oedema

:40 Retrogressive Disorders

:41 Atrophy

:42 Degeneration : Infiltration
- 1 Cloudy swelling
- 2 Fatty degeneration
- 3 Fatty infiltration
- 4 Hyaline
- 5 Amyloid
- 6 Mucoid
- 7 Colloid
- 8 Pigmentation
- 9 Calcification: ossification

:43 Calculus : Concretion

:44 Necrosis
- 1 Coagulation-necrosis
- 2 Caseation
- 3 Liquefactive necrosis
- 4 Septic: Toxic
- 5 Gangrene
- 6 With cavitation
- 7 With slough (sequestrum)

:45 Ulcer (not inflammatory)
- 1 Simple
- 2 Malignant

:46 Casts

:47 Trophoneuroses

:50 Inflammations

:51 Parenchymatous
- 1 Acute
- 2 Chronic

:52 Catarrhal
- 1 Acute : suppurative
- 2 Chronic

:53 Interstitial and fibrosis
- 1 Capsular
- 2 With enlargement of organ

:54 Exudative
- 1 Serous
- 2 Fibrinous
- 3 Diphtheritic
- 4 Suppurative, diffuse
- 5 Suppurative, local abscess
- 6 Hæmorrhagic

:55 Inflammation associated with:
- 1 Proliferation: sclerosis
- 2 Degeneration : rarefaction
- 3 Ulceration : cavitation : sinus : erosion
- 4 Necrosis
- 5 Stenosis (cicatricial)
- 6 Thrombosis: vegetations
- 7 Adhesion
- 8 Cicatrix : scar

:56 Specific
- 1 Tuberculosis
- 2 Tuberculosis miliary
- 3 Syphilis
- 4 Actinomycosis
- 5 Leprosy
- 6 Typhoid
- 7 Dysentery
- 8 Diphtheria
- 9 Anthrax

:57 Specific (cont.)
- 1 Malaria
- 2 Small Pox

:60 Progressive Disorders

:61 Regeneration

:62 Hypertrophy
- 1 With dilatation

:63 Benign Tumours
- 1 Lipoma
- 2 Fibroma
- 3 Chondroma
- 4 Osteoma
- 5 Myxoma
- 6 Glioma

:64 Benign Tumours
- 1 Myoma
- 2 Neuroma
- 3 Angeioma
- 4 Lymphangeioma
- 5 Lymphadenoma
- 6 Papilloma
- 7 Adenoma
- 8 Psammoma

:65 Sarcoma
- 1 Round-celled
- 2 Spindle-celled
- 3 Mixed-celled
- 4 Giant-celled
- 5 Melanotic
- 6 Plexiform
- 7 Alveolar
- 8 Glio-sarcoma
- 9 Lympho-sarcoma

:66 Carcinoma
- 1 Squamous
- 2 Rodent ulcer
- 3 Glandular
- 4 Columnar
- 5 Endothelioma

:67 Cysts
- 1 Retention: distension
- 2 Degenerative
- 3 Congenital
- 4 Parasitic
- 5 Cystoma

:70 Parasites

:71 Vermes
- 1 Cestoda
- 2 Nematoda
- 3 Trematoda

:80 General Nutritional Diseases

:81 Anæmia
- 1 Chlorosis
- 2 Pernicious anæmia
- 3 Splenic anæmia
- 4 Leucocythæmia
- 5 Hodgkins' disease

:82 Hæmorrhagic diseases
- 1 Purpura
- 2 Scorbutus
- 3 Infantile scurvy

:83 Diseases associated with ductless glands
- 1 Exophthalmic goitre
- 2 Myxœdema
- 3 Cretinism
- 4 Addison's disease

:84 Diabetes

:85 Diseases characterized by joint affections
- 1 Rheumatism
- 2 Osteo-arthritis
- 3 Gout

:86 Diseases characterized by bone affections
- 1 Rickets
- 2 Osteomalacia
- 3 Acromegaly
- 4 Hypertrophic Pulmonary Osteo-arthropathy

:87 Diseases due to poisons of extraneous origin
- 1 Alcohol
- 2 Lead
- 3 Phosphorus
- 4 Arsenic
- 5 Mercury

:88 Uræmia

:90 Surgical, etc.

:91 Operation

CIRCULATORY SYSTEM.

PERICARDIUM: ACUTE AND CHRONIC INFLAMMATION.

M.N. 1227. July, 1883. Dr. Ashby.

HEART: Fibrinous Pericarditis. 11 : 54 · 2
LUNGS: Fibrinous Pleurisy. 26 : 54 · 2

On both the parietal and visceral layers of the pericardium, there is a thick, slightly shaggy, deposit. The lower lobe of the right lung presents a fibrinous exudate, of thick and somewhat nodular character, which covers the greater part of the posterior and internal aspects. The diaphragm was removed with the lung, to which it appears to be adherent. Both upper and lower lobes show small areas on which fibrinous deposits are present.

M.N. 1228.

HEART: Pericarditis 11 : 54 · 2

The outer layer of the pericardium is reflected outwards. The epicardium shows very slight deposit of fibrin which is most marked along the course of the blood-vessels. The right ventricle is enlarged from dilatation.

M.N. 1229. D.B. 194.

HEART: Fibrinous Pericarditis. 11 : 54 · 2
12 : 27

The heart is slightly increased in size. The epicardium is covered with a thick fibrinous exudate, which in several places has peeled off, leaving a strikingly smooth epicardial surface. In some places the exudate hangs in shaggy threads. There is evidence of some general dilatation of the heart.

M.N. 1230.

HEART: Fibrinous Pericarditis, Dilatation. 11:54·2
12:27·2

The parietal layer of the pericardium is reflected upwards to display the fibrinous exudate, which more or less entirely covers the epicardium, and also the parietal layer of the pericardium. The surface of the right ventricle near the base, and in the neighbourhood of the right auricular appendix, is free from deposit. The exudate apparently peels off readily, and, in some places, presents a matted, and in others a honeycombed appearance, whilst other areas present a reddish deposit which stands out somewhat prominently on the yellowish background of the earlier exudate. The heart as a whole is dilated, giving the organ a markedly rounded contour.

M.N. 1231.

HEART: Acute and Chronic Pericarditis. 11:54·2
11:55·1

The parietal layer of the pericardium is reflected outwards. Both visceral and parietal layers are the seat of a patchy, reddish-coloured, villous, fibrinous exudate. Both layers are also of a whiter and denser appearance than normal, and the recent exudate is superimposed on an older exudation now partly organised.

M.N. 1232.

HEART: Pericarditis, Acute and Chronic. 11:54·2
11:55·1

The pericardium (parietal layer) is reflected so as to expose its internal aspect. Both layers are covered irregularly with a dark, fibrinous exudation, arranged somewhat in the shape of a honeycomb. The epicardium is white, and thicker than normal. The heart is not apparently increased in size.

M.N. 1234. Mr. Southam.

HEART: Fibrinous Pericarditis. 11 : 54 · 2

The parietal layer of the pericardium is reflected upwards; the epicardium of both ventricles is irregularly covered with a thick fibrinous exudate of a matted appearance. At the auriculo-ventricular groove, bands of exudate pass from the visceral to the parietal layers. The parietal layer is less affected than the visceral layer.

M.N. 1235. D.B. 2383.

HEART: Fibrinous Pericarditis. 11 : 54 · 2
12 : 27

The pericardium is reflected so as to expose the inner surface of the parietal layer. The visceral and parietal layers are almost entirely covered by a thick, somewhat mammillated exudate, and the auriculo-ventricular grooves are entirely filled up with the exudate. Both auricular appendices are also covered with exudate. The heart appears to be slightly enlarged, and the right ventricle to be dilated.

M.N. 1238. D.B. 1314. Oct. 12, 1891. Dr. Harris.

HEART: Indurative Mediastino-Pericarditis. 11 : 55 · 7
26 : 55 · 7

The specimen consists of the thoracic contents laid open by a vertical incision through the heart. It shows a large caseous mass in the anterior mediastinum, situated above the right ventricle, and just anterior to the arch of the aorta. The mediastinal tissues all show marked fibrosis, and were firmly adherent to the sternum in front, to the lungs on either side, and to the outer aspect of the pericardium.

Microscopically, the caseous mass presented a homogeneous, granular appearance, and would neither stain with hæmatoxylin nor carmine. Tubercle bacilli could not be demonstrated. The pericardium at its diaphragmatic portion showed marked fibrous thickening of both visceral and parietal layers, and between the two there is a thick layer of friable caseous matter.

The patient was a boy aged 14. (See "Indurative Mediastino-Pericarditis," Dr. Harris.)

M.N. 2970. D.B. 4315. P.M.M. 691. Dr. Harris.

HEART: Acute Pericarditis 11 : 54 · 2

LUNGS: Acute Pleurisy. 26 : 54 · 2

The pericardium is thickened and the sac contained 1 oz. of fluid in which whitish flakes were suspended. Both layers show recent fibrinous exudation which forms a rough, shaggy covering. Pleuræ: Each cavity contained 2 ozs. of somewhat clear fluid. The pleura on both layers is covered with an extremely thick layer of recent fibrinous exudation.

The patient was a child aged 3, who died after an illness lasting a week.

M.N. 3594. D.B. 4769. P.M.M. 783. Dec. 9, 1905. Dr. Graham Steell.

HEART: Fibrinous Pericarditis; Hypertrophy. 11 : 54 · 2
12 : 62

The heart weighed 19 ozs. Both layers of the pericardium were throughout thickened, and the seat of a pale grey, moderately thick layer of fibrin, which united them. In the pericardial sac there was about an ounce of somewhat blood-stained, slightly turbid, serous fluid. The heart is moderately enlarged and is conical in shape. The hypertrophy affects the left ventricle alone. The cavities are not dilated. The valves and their orifices are normal. There is no atheroma of the aorta. (See kidney M.N. 3593—51 : 87·2.)

M.N. 3666. D.B. 4750. P.M.M. 780. Nov. 25, 1905. Dr. Wilkinson.

HEART: Fibrinous Pericarditis; Hypertrophy. 11 : 54 · 2
12 : 62

The heart weighed 15 ozs. The entire pericardium is the seat of a well-marked, finely granular, fibrinous exudation, which united the layers. There were only a few drops of turbid yellow serous fluid. There is slight hypertrophy of the wall of the left ventricle. The aorta showed a few small patches of atheroma. The coronary arteries are markedly atheromatous and show evidence of calcification.

The patient was a male, aged 48, who suffered from chronic parenchymatous nephritis with commencing interstitial changes. (See kidney, M.N. 3667—51 : 52·2.)

PERICARDIUM: SPECIFIC INFLAMMATIONS.

M.N. 1237. Feb. 10, 1886.

HEART and MEDIASTINAL GLANDS: Tuberculous Pericarditis and Lymphadenitis. 11 : 56 · 1 43-4 : 56 · 1

A portion of the parietal layer of the pericardium has been removed to show the appearances of the exudate. The latter is very thick and uniformly covers the entire visible surfaces of both visceral and parietal layers, and in the visceral layer some small nodules are visible. The mediastinal glands are enlarged and caseous in places.

HEART: CONGENITAL MALFORMATIONS.

M.N. 1219. Dr. Ashby.

HEART: Patent Foramen Ovale. 12 : 12
12 : 62 · 1

The right ventricle is opened to show the pulmonary and tricuspid valves. The right ventricle is dilated, and slightly hypertrophied. The right auricle is also very much dilated, and the foramen ovale is widely patent, so that the right and left auricles communicate freely with one another. The patient, a child, was still-born.

M.N. 1222. Dr. Ashby.

HEART: Congenital Malformation. 12 : 12
12 : 62

The outer walls of both left and right ventricles have been removed. The inter-ventricular septum is deficient at its upper part. The pulmonary artery is apparently absent. The aorta is extremely wide. The foramen ovale is patent, its location being denoted by an ivory peg. The walls of the two ventricles are of nearly identical thickness. The patient, a child, was still-born.

M.N. 1223.

HEART: Malformation of Pulmonary Orifice. 12 : 12 · 2

There are two large semilunar valves at the pulmonary orifice. The heart is otherwise normal.

M.N. 2717. D.B. 3747. Dec. 15, 1899. Dr. Harris.

HEART, AORTA and LARYNX: Hypoplasia (Congenital) of Large Vessels and Larynx. 12 : 17 · 1
22 : 17 · 1
14 : 17 · 1

From a man aged 21 years, one of a family of thirteen, eight of whom died in infancy. He presented an infantile appearance; his voice was infantile; the genital organs were small and ill-developed; the majority of the organs were under the average weight; and his height was only 4 ft. 4 in. Death occurred from chronic enteritis and lardaceous infiltration. The larynx is very small in size. The heart was very small and weighed only 7 ozs. (See kidney, M.N. 3431—51 : 12.)

M.N. 2797. D.B. 4277. Jan. 9, 1905. Dr. Ashby.

HEART: Malformation. 12 : 12 · 4
12 : 27
43 · 4 : 56 · 1

The specimen is the heart of a child aged 4 months, and shows slight dilatation of the right ventricle and auricle. The preparation has been dissected to show the position of the ductus arteriosus. Dimples in both the aorta and pulmonary artery indicate the closed orifices of that vessel. There is an enlarged gland which shows small nodules of caseation. The specimen is from a case of tuberculous broncho-pneumonia.

M.N. 2826. D.B. 4076. P.M.M. 409. May 18, 1903. Dr. Graham Steell.

HEART: Deficiency of Interauricular Septum, Acute Sero-fibrinous Pericarditis, Mitral Endocarditis with Cardiac Hypertrophy and Dilatation. 12 : 12 · 4
13 · 1 : 55 · 1
13 · 1 : 55 · 5
12 : 62 · 1
11 : 54 · 2

The heart weighed 37 ozs. The pericardium was much distended by yellow effusion (turbid). Both layers, and especially the visceral, were the seat of extensive spongy yellow fibrinous deposit. The heart is much enlarged, especially on the right side, and especially the auricles. The apex was rounded. The right auricle showed marked hypertrophy and dilatation. The interauricular septum is very deficient. There is in place of the septum a mass of muscle on the anterior wall, smooth and round. The Eustachian valve is distinctly seen. The tricuspid valves were normal and the orifice dilated. The right ventricle walls were thick and firm, and the cavity was much enlarged. The pulmonary valves were normal. The left auricle is continuous with the right auricle. The walls are thick. A horizontal, triangular fold of endocardium projects from the margins of the inter-auricular septum at its upper and anterior angle into the cavity of the left auricle. The mitral valve cusps are thick, distorted, and rigid, but the surface is smooth. The orifice is slit-like and contracted (admitting two finger tips). In the left ventricle the walls are thickened. The aortic valves are normal. The aorta is distinctly larger in calibre than the pulmonary artery. There is a sausage-like swelling in the

auriculo-ventricular groove posteriorly, representing the sinus venosus. One end opens into the right auricle near the Eustachian valve. In the other direction it can be traced along to the front aspect of the left auricle.

The patient was a female aged 39. There was congenital deficiency of the nasal septum just above the columella. The organs showed passive congestion and there was basal œdema of the lungs. The lips were cyanosed. The spleen weighed 6 ozs. No rheumatic history; doubtful history of growing pains at 16. Doubtful history of chorea during pregnancy 15 months ago. Palpitation and irregularity of heart for 15 years. Dyspnœa and œdema were present for the last 15 months. There was no cyanosis till near death. There was ascites and hydrothorax. Death from cardiac failure.

M.N. 2862. D.B. 4157. P.M.M. 490. Nov. 4, 1903. Dr. Harris.

HEART: Congenital Malformation.

12 : 12
14 · 2 : 12 · 6
12 : 62 · 1

The heart is much enlarged, especially on the right side, and globular in shape. The right auricle is slightly enlarged. The right ventricle cavity is much enlarged, and its walls are almost as thick as those of the left ventricle. The infundibulum is narrowed; the pulmonary valve orifice admits a goose quill. The cusps are in miniature, each cusp perfect except in size. The pulmonary artery beyond is narrow and hardly admitted the tip of the little finger. The mitral cusps have slightly thickened fringes. The left ventricle cavity is slightly enlarged, the walls are thinner than normal. The pars membranacea is absent, and the defect admits two fingers easily. The aorta therefore communicates with both ventricles. The aortic end of the ductus arteriosus remained patent as a minute sinus. The pulmonary artery end was closed and showed an area of opaque thickening. The heart weighed 16 ozs. The patient had always been cyanotic, and died from the effects of this condition. There was intense congestion throughout the organs, but no œdema. There was serofibrinous pleurisy, but no pneumonia.

The patient was a male aged 26.

M.N. 2950. D.B. 4241. P.M.M. 649. Dr. Harris.

HEART: Malformation, Endocarditis, Hypertrophy, and Dilatation. 12 : 12 · 4 / 13 · 1 : 55 · 1 / 12 : 62 · 1 / 14 · 2 : 27 · 2

The subepicardial fat is somewhat small in amount. The heart is enormously enlarged on both sides, but especially on the right side. The outline is almost circular. The myocardium is firm. Right auricle: Walls markedly thickened and firm. Cavity very much dilated. Tricuspid valve cusps show slight opaque thickening along their free margins; the valves do not feel rigid and the chordæ are normal. It was almost possible to put one's fist through the aperture. Right ventricle walls markedly thickened and firm. Cavity enormously dilated, containing over 10 ozs. of clot. Pulmonary cusps have slightly thickened and serrated margins (not shaggy), they all appear larger than normal. Left auricle walls slightly thickened. Foramen ovale patent as a large oval aperture capable of admitting three finger tips; its margins are smooth and thin. Cavity of left auricle is enlarged, but less so than that of the right auricle. The mitral valve cusps show a moderate degree of thickening and opacity, but they are more rigid than the tricuspid cusps; the margins are adherent, the flaps being arranged in a funnel-shaped form and three finger tips can be passed through the aperture. The chordæ are thickened. Left ventricle: The walls are slightly thinner than normal. Its cavity is much dilated but only to about two-thirds the extent of that on the right side. The aortic cusps are normal. The circumference of the orifice is only about half that of the pulmonary artery. The aorta and coronaries were normal.

The patient was a male aged 17.

M.N. 2966. D.B. 4072. P.M.M. 406. May 13, 1903 Dr. Graham Steell.

HEART: Patent Foramen Ovale, Mitral Stenosis, Hypertrophy, and Dilatation. 12 : 12 · 4 / 13 · 1 : 55 · 1 / 12 : 62 · 1

The heart was very much enlarged on both sides and weighed 22 ozs. The shape is rounded and all the cavities are dilated. The right ventricle is very large, and the right auricle is larger than the left auricle. The walls are thickened throughout, especially those of the right ventricle. The foramen

ovale is present as a large oval aperture having a maximum diameter of 2 ins. The edges are smooth. The mitral cusps show much thickening, and their surface is irregular especially in the parietal flap. The orifice admits two finger tips with difficulty. The tricuspid valves are normal, and the orifice admitted five finger tips easily. The pulmonary valves are of unequal size and the orifice is distinctly larger than that of the aorta. The aortic valves show congenital fenestrations, and slight thickening and rigidity of the cusps.

The patient was a female aged 43. There was no cyanosis till the time of death, which took place from cardiac failure.

M.N. 3254. D.B. 2603. P.M.M. 1894, No. 44. June 22, 1894. Dr. Harris.

HEART: Congenital Malformation and Vegetative Endocarditis. 12 : 12 13 : 55 · 6

The ventricles of the heart are much enlarged. The enlarged right side occupied the anterior aspect of the heart to a large extent. The right auricle was dilated. The tricuspid valves show ulceration and numerous vegetations. The wall of the right ventricle is much thickened. The mitral segments show recent vegetations on the auricular surface. There is a large opening in the interventricular septum. There is one large trunk representing the aorta and pulmonary artery. The opening of the trunk is guarded by three semilunar valves.

M.N. 3383. D.B. 2485. P.M.M. 1894, No. 8. March 28, 1894. Dr. Harris.

HEART: Congenital Malformation. 12 : 12 14 · 2 : 12

The heart was small and firm. The tricuspid orifice admitted the tips of two fingers. The aortic and pulmonary orifices were competent. The pulmonary artery was small, and the orifice has only two cusps, each with a deep pocket behind it. The foramen ovale is slightly patent. The walls of both ventricles are thick and firm, and there is a large opening in the interventricular septum, close to the commencement of the aorta.

The patient was a woman aged 20, who came into hospital suffering from hæmoptysis. She died apparently from heart failure. The liver and spleen were large, and there was pulmonary tuberculosis.

M.N. 3392. D.B. 3150. June 6, 1895. Mr. J. W. Smith.

HEART: Congenital Malformation. 12 : 12

This specimen shows the following structural abnormalities. The septum between the ventricles is deficient. The aorta formed a common trunk for the blood which passed from both right and left ventricles, and the blood to the lung passed through the patent ductus Botalli. A red rod is placed in the opening between the two ventricles. A pink rod passes through the patent ductus arteriosus from the aorta to the commencement of the pulmonary arteries. A blue rod is inserted in the commencement of the pulmonary arteries.

M.N. 3468. D.B. 4249. Dr. Ashby.

HEART: Congenital. Stenosis of Pulmonary Artery. Deficient Septum. Hypertrophy of Septum and of both Ventricular Walls. 12 : 12 / 14·2 : 12·6 / 12 : 62

The right auricle is dilated, the left auricle is about the normal size. The aorta for about $3\frac{1}{2}$ c.m. from its origin is very dilated (diameter 2—7 to 3 c.m.). It has been cut across to show this. The pulmonary artery (shown by a red glass rod) is stenosed (0·7 to 0·9 c.m.). The walls of the right ventricle are 0·9 c.m. in thickness, those of the left ventricle 0·9—1·1 c.m. thick. The pars membranacea is seen to be deficient, and both ventricles therefore communicate with the aorta.

At the autopsy, the ductus arteriosus was found to be patent, the foramen ovale was closed, the openings of all the veins were normal, and the valves, orifices, and descending aorta were also normal.

The specimen was taken from a child aged one year, who, since birth, had had frequent attacks of cyanosis, dyspnœa, and unconsciousness. The attacks generally lasted for about three hours; between the attacks the child appeared to be in normal health. A loud systolic murmur was heard over the whole cardiac area.

M.N. 3600. D.B. 4321. Feb. 14, 1905. Dr. F. C. Moore.

HEART: Congenital Malformation. 12 : 12

The heart is that of an infant. There is atresia of the aorta which lies as a mere strip of tissue to the right of the pulmonary artery. The ductus arteriosus is widely patent. There was also a large deficiency in the interventricular septum.

M.N. 3607. D.B. 3149. Dec. 6, 1894. Dr. Porter.

HEART: Congenital Malformation. 12 : 12 · 4
12 : 62

The specimen is the heart of a young subject. It has been prepared to show the patency of the interventricular septum in the region usually occupied by the pars membranacea. The walls of both ventricles are considerably hypertrophied.

M.N. 3700. D.B. 4816. P.M.S. 488. Feb. 2, 1906. Mr. Platt.

HEART: Transposition. 12 : 11

The heart weighed $9\frac{1}{2}$ ozs. It was taken from a woman aged 31, in whom there was complete transposition of viscera. The apex was turned to the right. It will be noted that the pulmonary artery lies in front of the aorta, but that these large vessels run in directions opposite to those which they take normally in the body. (See lung M.N. 3699—25 : 11, and liver M.N. 3701—36 : 11.)

HEART: RUPTURE AND LACERATION.

M.N. 1226.

HEART: Punctured Wound. 12 : 22

The wound is situated immediately behind the right border, about $1\frac{1}{4}$ in. from the apex, in the substance of the right ventricle, and is indicated by means of a blue rod. Round the puncture there is a little blood effused, but no other evidence of inflammatory changes. The incised wound seen immediately below the puncture has evidently been made post mortem, probably in order to determine the depth of the first wound.

M.N. 2732. D.B. 3973. Feb. 12, 1902. Dr. Finney.

HEART: Rupture of Interventricular Septum. 12 : 21 · 7
12 : 42 · 3

At the lower part of the septum, a small rupture has occurred. At this point the muscular tissue is somewhat thinner than normal. There is a considerable amount of fatty infiltration, most marked along the auriculo-ventricular grooves, and in the muscles themselves there are light and dark areas. The anterior coronary artery runs a tortuous course, and is surrounded by much fatty tissue. The valves, mitral and tricuspid, are slightly thickened, the papillary muscles of the left ventricles are also thickened.

HEART: DILATATION AND ANEURYSM.

M.N. 1314. D.B. 2378.

HEART: Aneurysm of the Left Auricle, Endocarditis. 12 : 27 · 1
12 : 34 · 1
13 · 1 : 55 · 5
12 : 62

The left auricle is enormously dilated and the wall is thin and irregular, partly from atheromatous changes, and partly from a deposit of thrombus. There is evidence of extensive calcification of the walls. The mitral cusps are thickened and firm, and the orifice is much stenosed. There is evidence of moderate hypertrophy of both ventricles.

Microscopical examination shows that the calcareous granules are very thickly deposited as small rounded granular masses in the midst of the hyaline tissue.

M.N. 1387. D.B. 1284. P.M.M. 1891, No. 15. July 14, 1891. Dr. Dreschfeld.

HEART: Aneurysm following Myocarditis. 12 : 27 · 1
12 : 53

The heart weighed 12 ozs. At the apex of the left ventricle the muscular wall is completely absent, the apex being formed of fibrous tissue and thickened endocardium which also presents distinct calcareous plates. The mitral valves are slightly puckered and the aortic valves incompetent, otherwise the heart shows nothing abnormal. (See peritoneum M.N. 2778—38·2 : 67·4.)

The patient was a female aged 50,

M.N. 1510. D.B. 1461. P.M.M. 1891, No. 133. March 28, 1892. Dr. Harris.

HEART: Dilatation associated with Acute Pericarditis. 12 : 27
11 : 54 · 2

The heart was much enlarged, and the two layers of the pericardium were united by recent fibrinous adhesions. The cavities are dilated, and the walls somewhat thickened, especially on the right side. The mitral orifice admitted the tips of three fingers. The aortic orifice was normal. There were patches of broncho-pneumonia at the base of the right lung.

The patient, a boy of 10 years of age, died of heart failure, with signs of marked venous congestion.

M.N. 3403. D.B. 2912. P.M.M. 1894, No. 130. Dec. 13, 1894.
Dr. Dreschfeld.

HEART: Aneurysm of the Left Auricle. 12 : 27 · 1
12 : 34 · 1

The left auricle is much enlarged, its walls are markedly thickened, and the lining membrane is very irregular from atheromatous change with well-marked calcareous patches. On the left posterior wall is an aneurysmal sac, the size of a closed fist, which formed a large projection on the surface of the auricle. The sac extended backwards and downwards to the right, behind the pulmonary artery and the aorta, and projected into the posterior wall of the dilated right auricle, where it has led to thickening of the auricular wall, and deposition of fibrin. The aneurysm is in great part filled with laminated clot. Apart from the above condition there is seen to be slight hypertrophy and dilatation of both ventricles leading to a moderate enlargement of the heart as a whole. The aortic valves are the seat of sclerosis and calcification.

The patient was a female, aged 58, who died from heart failure.

M.N. 3598. D.B. 3968. Feb. 6, 1902.

HEART: Cardiac Aneurysm. Interstitial Myocarditis. 12:27·1
12·1:53
12:62

The heart is much enlarged and the increase in size affects the left ventricle especially. All the valves are normal. The muscular wall shows extensive evidence of fibrosis, especially that of the left ventricle. Near the apex the myocardium exhibits a large amount of interstitial growth, while at the apex the muscle fibre has completely atrophied, and the wall, which consists of a thin layer of fibrous tissue, is in the form of a rounded aneurysmal dilatation. Both ventricular walls show a moderate degree of hypertrophy. The coronary arteries were atheromatous.

The patient was dead when brought into the infirmary..

M.N. 3702. D.B. 4806. P.M.M. 798. Jan. 24, 1906.

HEART: Cardiac Aneurysm. 12:27·1
14·4:55·2

The heart weighed 16 ozs. It is slightly enlarged and has a more conical appearance than normal; this is due to bulging downwards of the apex of the left ventricle as a regularly rounded aneurysmal protrusion which felt flaccid before the heart was opened. At this part it is seen that the wall of the left ventricle is much thinned, and it cut with the firmness of dense fibrous tissue, but both pericardium and endocardium are apparently normal in this region, and there is no sign of thrombosis. The heart is otherwise normal. The main trunk of the left coronary artery is for $1\frac{1}{2}$ inches the seat of continuous rigid atheromatous change. The right coronary artery is much less affected. There was marked atheroma in the descending aorta. The other organs were normal.

The patient was a male aged 57, who was taken suddenly ill in the train and died before he could be brought to M.R.I.

HEART: CIRCULATORY DISTURBANCES.

M.N. 2840. D.B. 4097. P.M.M. 421. May 28, 1903. Dr. Graham Steell.

HEART: Cardiac Thrombus occurring in a case of Chronic Mitral Endocarditis with Stenosis, also Aortic Endocarditis. 12:34·1 13·1:55·5 13·2:55·5

The heart was enlarged, and the apex was rounded. Cavities: Right auricle slightly enlarged. Right ventricle slightly dilated. Left auricle much distended with whitish-grey thrombus, the centre of which is pale yellow and soft. It is tunnelled from the pulmonary veins to the mitral orifice. Section of the auricular wall shows a lining of thick, opalescent, fibrous tissue, affecting the endocardium. Left ventricle much dilated. The walls of the left auricle and left ventricle are slightly thickened. The mitral cusps are thickened, rigidly adherent to each other, and distorted. Calcification also is present. The aortic valves are much thickened, rigid, distorted and calcified. The other valves are normal. The aorta and coronary arteries are normal. There was œdema of the lower limbs.

The patient was a female, aged 40. She had had rheumatic fever at 17. The cause of death was cardiac failure. (See spleen M.N. 2841—45:36·1 and kidney M.N. 2974—51:36·1.)

M.N. 2865. D.B. 4159. P.M.M. 493. Nov. 10, 1903. Dr. Dreschfeld.

HEART: Thrombus, Myocarditis, Hypertrophy and Dilatation. 12:34·1 12·1:53 12:62·1

The heart was much enlarged, and weighed 24 ozs. It has a rounded apex and globular contour. There is much subepicardial fat. There is a thrombus present in the left ventricle firmly adherent to the wall, and it is situated over an area of myocarditis in which the wall is much thinned out. Apart from this the wall is considerably hypertrophied. The cavity is enlarged, but about $\frac{1}{4}$ of its space is occupied by the thrombus. The coronary and aorta are athcromatous. On the right side of the heart there was a small mass of thrombus (red) adherent to the wall, and a large embolism was found in the pulmonary vessels.

The patient was a male aged 63, who had chronic interstitial nephritis and died with symptoms of uræmia. (See artery (pulmonary) M.N. 2969—14·2:35·1 and kidney M.N. 2866—51:62 and cæcum M.N. 2867—35·4:55·3.)

M.N. 2891. D.B. 4219. P.M.S. 381. June 16, 1904.
Dr. Harris and Mr. Southam.

HEART: Hæmorrhages in Lymphatic Leucocythæmia. 12:33·2 (81·4)

The heart is small and weighed $8\frac{1}{2}$ ozs. It was of normal shape. An enormous number of slightly raised, very bright red spots, each with an opaque, pale grey centre, was seen over the visceral pericardium, especially on the lower half of both ventricles. The average size was about $^1/_{12}$ of an inch, but they had sometimes coalesced. The surface is smooth and glistening, and they are not hard. The myocardium is pale, anæmic, and friable, and there are no red spots in the substance of it. In the left ventricle there are, under the endothelium, a few spots like those described. There was in this cavity a pale grey clot with distinct streakings of a puriform character.

On microscopic examination an extensive, deep, and dense collection of lymphocytes beneath the epicardium is seen. The epicardium is in consequence raised, but is intact. There is, with the lymphocytes, a hæmorrhagic infiltration, on the whole more superficial than that of the lymphocytes. The lymphocytes have infiltrated the superficial layers of the muscle. There is some minute fatty change in places. The proportion of the white cells to the red is about 1—6. Most of the leucocytes are of the large variety of lymphocytes. The other organs showed lymphocytic infiltrations. The spleen weighed $14\frac{1}{2}$ ozs.

The clinical history is incomplete. (See kidney M.N. 2890—51:81·4.)

M.N. 2939. D.B. 4234. P.M.M. 644. Oct. 8, 1904. Dr. Graham Steell.

HEART: Myocarditis and Cardiac Thrombus. 12:34·1
14·4:55·2
12·1:53
12:62·1

The heart was moderately enlarged and weighed 17 ozs. The shape was rounded. The myocardium is of normal colour and consistence. Right auricle: Walls thickened and firm; anteriorly it is lined with opaque, greyish red thrombus, which does not extend to the appendix. The tricuspid orifice admits five finger tips. The cusps are normal. Right ventricle: Walls slightly

thickened; cavity moderately dilated; pulmonary valves normal. Left auricle: Walls of normal thickness; cavity slightly dilated; mitral valves normal; orifices admit three finger tips. Left ventricle: Walls slightly increased in thickness except at apex, where it is thin, and the myocardium was replaced by grey, fibrous tissue, enclosing a nodule the size of a cherry stone of softer consistence, of yellowish-brown colour and well defined; the cavity was moderately dilated. The region of the apex and lower third of the cavity is filled with very soft opaque thrombus of a brick-red colour. The aortic valves normal. The aorta shows numerous minute patches of atheroma. The coronary arteries show very extensive atheroma and in places calcification has taken place, and the arteries feel very rigid. The right coronary artery is completely obstructed $\frac{1}{2}$ inch from its orifice with firm, pale yellow atheromatous thickening.

The patient was a male aged 48. At the autopsy were also found pulmonary infarcts with acute sero-fibrinous pleurisy and gangrene of the foot.

M.N. 3307. D.B. 4359. P.M.M. 700. March 17, 1905. Dr. Graham Steell.

HEART: Cardiac Thrombus, Hypertrophy and Dilatation. 12 : 34 · 1
12 : 62 · 1
14 · 1 : 55 · 2

The following is a summary of the notes:—Weight 31 ozs. Subepicardial fat normal; pericardium normal; heart much enlarged; apex somewhat rounded; myocardium of normal colour and consistence. R. auricle walls normal; cavity distended with red p.m. clot; tricuspid valve normal; orifice admits 7 finger tips. R. ventricle: Walls markedly thickened; cavity moderately dilated and filled with red p.m. clot; pulmonary valve normal. L. auricle: Walls normal; cavity filled with p.m. clot; mitral valves normal; orifices admit six finger tips. L. ventricle: Walls markedly thickened throughout; cavity moderately large and full of p.m. clot—though the apex and the lower quarter of the cavity is full of opaque, brick-red, soft, diffluent, ante-mortem thrombus. Aortic valves normal. The aorta shows very extensive atheroma and the patches cover almost the entire surface, but there is no sign of ulceration or calcification.

The patient suffered from parenchymatous nephritis and died from heart failure. (See kidney M.N. 3308—51 : 52·2 and liver M.N. 3306—36 : 32.)

M.N. 3634.

HEART: Thrombus, Interstitial Myocarditis. 12 : 34 · 1
12 · 1 : 53
12 : 27 · 1

The specimen has been prepared to show the walls and cavity of the left ventricle. The anterior wall of this cavity is attenuated, and the muscle has entirely disappeared over a large area, where it has been replaced by fibrous tissue. This part of the wall has bulged outwards, and the endocardium covering it is much thickened. Attached to part of the wall which shows the most prominent bulging there is a blood-clot about an inch thick and of a hyaline appearance. The inner surface of the clot is rough and pigmented by a more recent deposit of blood. On the cut surface of one of the musculi papillares, attached to the mitral valve, are seen small patches of whitish sclerosed tissue.

HEART: ATROPHY.

M.N. 1269. Mr. Southam.

HEART: Atrophy. 12 : 41
MEDIASTINAL GLANDS: Lympho-Sarcoma. 43·4 : 65·9

The heart is of small size, and the visceral layer of the pericardium is shrivelled, especially along the right border. The coronary arteries are very tortuous and the ventricles are relatively smaller than the auricles. The mediastinal glands are enlarged and are more or less embedded in a mass of new growth. The pleura is adherent to them in places, and a portion of lung has been removed with the pleura. There are also seen the pigmented glands, lung tissue, and other structures in the hilus of the left lung, embedded in the mass of lympho-sarcoma.

M.N. 3359. D.B. 4596. P.M.S. 450. June 10, 1905. Mr. Collier.

HEART: Brown Atrophy. 12 : 41
12 : 42·8

The heart is very small, 5 ozs. in weight, of conical shape, and of firm consistence. Tortuous coronary arteries are seen in the subepicardial fat which is in slight excess. The myocardium has a distinct brown tinge, and the brownish patches can be seen through the somewhat lax epicardium.

Microscopically there was seen the usual appearance of brown granules lying near the nucleus of the muscle fibres. (See œsophagus M.N. 3305—33 : 66·1.)

The patient was a female aged 40, a woman of average stature, who died from epithelioma of the œsophagus.

M.N. 3435. D.B. 4567. P.M.M. 717. May 27, 1905. Dr. Dreschfeld.

HEART: Brown Atrophy. 12:41
12:42·8

The heart weighed 9 ozs., and showed under the epicardium a layer of fat of gelatinous appearance. The myocardium, while of moderately firm consistency had a brownish colour and was slightly friable.

The patient was a male aged 61 who died from carcinoma of the stomach. (See stomach M.N. 3436—34:66·3 and peritoneum M.N. 3437—38:66·3.)

M.N. 3493. D.B. 4636. P.M.M. 727. July 3, 1903. Dr. Dreschfeld.

HEART: Brown Atrophy. 12:41
12:42·8

The heart is very small, but conical and firm. It weighed 5 ozs. There is a slight increase of subepicardial fat. Patches of brown pigmentation may be seen on the anterior surface of the heart, especially over the right ventricle. The patient was a female aged 31, of slightly less stature than normal, and moderately emaciated, who died from ulcerative colitis. There was nothing abnormal detected in the arterial system. (See large intestine M.N. 3377—35·4:55·3, and spleen M.N. 3494—45:36·1, and adrenal M.N. 3378—47:33.)

M.N. 3690. D.B. 4748. P.M.M. 779. Nov. 23, 1905. Dr. Wilkinson.

HEART: Brown Atrophy. 12:41
12:42·8

The heart weighed $8\frac{1}{2}$ ozs. and is small and conical. It shows the brownish tinge of the myocardium and the gelatinous appearance of the subepicardial fat. The coronary arteries are somewhat tortuous, but not thickened. The large arteries at the base appear disproportionately large compared with the size of the heart.

The patient suffered from pulmonary tuberculosis and diabetes. (See lungs M.N. 3689 A and B—25:56·1.)

HEART: DEGENERATION AND INFILTRATION.

M.N. 1240.

HEART: Lipomatosis, Rupture. 12 : 42 · 3
12 : 27 · 2

Both ventricles are covered with a thick layer of adipose tissue, the deposit being least marked on the posterior surface, and at the apex, and most marked in the auriculo-ventricular grooves, and along the course of the coronary vessels. At the base of the anterior aspect of the aorta a small rupture (indicated by a spicule) has occurred. The left ventricle has been opened anteriorly and the muscles appear somewhat flaccid. The aorta shows patches of early atheroma.

M.N. 1241.

HEART: Fatty Infiltration. 12 : 42 · 3

The specimen shows, over practically the whole of the surface of the heart, an excessive deposit of fat under the epicardium. The left ventricle is slightly dilated, and there is some atrophy of the columnæ carneæ.

M. 3486. D.B. 4717. Oct. 29, 1905. Dr. Edge.

HEART: Addison's Disease, Pigmentation. 12 : 42 · 8 (83 · 4)

The characteristic brown pigmentary deposit, which occurs in Addison's disease, is visible on the appendix of the right auricle, and at the apices of both ventricles. Near the apex of the left ventricle, and about the middle of the anterior wall of the right ventricle, irregular greyish-white patches are visible (milk spots). The heart shows slight lipomatosis. The patient was a man aged 31 years, who had suffered for some years from general weakness, and pigmentation of the skin. (For a description of the suprarenal glands of this case see suprarenal M.N. 3492—47 : 83·4).

M.N. 3670. D.B. 4734. P.M.S. 473. Nov. 10, 1905. Mr. Wright.

HEART: Fatty Infiltration. 12 : 42 · 3

The heart is moderately enlarged, but it has retained its conical outline. It weighed $16\frac{1}{2}$ ozs. There is a very marked excess of subepicardial fat which has encroached to a great extent on the muscular wall of the right ventricle. The coronary arteries are markedly atheromatous. The aorta is normal.

The patient was a male aged 67, who died suddenly from syncope after an operation for fistula in ano. (See M.N. 3671—38·1 : 42·3.)

HEART: SPECIFIC INFLAMMATIONS.

M.N. 1266.

HEART OF CHILD: Syphilitic Gummata. 12 : 56 · 3

The wall of the right and left auricles contains large encapsuled masses, composed partly of caseous material. Some of the nodules have broken down, and left cavities lined with necrotic tissue. In the sub-epicardial tissue of the right ventricle there is also a large gumma. At the interventricular groove and along the line of the anterior coronary artery there are similar gummatous encapsuled masses. The right auricle is slightly dilated. The pulmonary artery arises in its normal position and follows a slightly tortuous course between the nodules, but maintains its proper relation to the aorta.

HEART: HYPERTROPHY AND DILATATION.

M.N. 1225.

HEART: Hypertrophy and Dilatation. 12 : 62 · 1

The heart is moderately enlarged and of globular outline, the increase in size being most marked on the right side. The left auricle, mitral orifice, and mitral valve are normal. The left ventricle is dilated. The right auricle, tricuspid orifice, and right ventricle show marked dilatation. Entangled among the chordæ tendineæ are numbers of small thrombi. There is a slight deposit of adipose tissue in the auricular and ventricular grooves.

M.N. 2811. D.B. 4024. P.M.M. 355. Dec. 10, 1903. Dr. Graham Steell.

HEART: Hypertrophy, Dilatation, and Fatty Degeneration (Alcoholism). 12 : 62 · 1 (87 · 1) 12 : 42 · 2

The heart weighed 15½ ozs. and was markedly enlarged. The apex was rounded and the whole heart was globular. The myocardium was paler and more friable than normal. All the cavities show moderate dilatation. The walls are thickened, the valves normal, and a few patches of early atheroma are found in the aorta. The coronary arteries were normal.

The patient died from general passive congestion and heart failure.

M.N. 2812. D.B. 4025. P.M.M. 357. Dec. 30, 1902. Dr. Harris.

HEART. Hypertrophy and Dilatation of the right side in a case of Chronic Bronchitis and Bronchiectasis. 12 : 62 · 1

The heart was enlarged and weighed 24 ozs. The enlargement affects both sides, but especially the right. The apex is rounded, and the outline is "square." The myocardium was dark in colour and firm, all the cavities are enlarged; the right ventricle greatly so. The walls are hypertrophied, especially that of the

right side. The valves and the aorta were normal. The patient, a male aged 27, had bronchiectasis in both lungs and bronchitis. There was general congestion and œdema of the lower limbs and serous cavities. The patient always had a cough, and eleven years ago he had influenzal pneumonia. Seven years ago there was swelling of the legs and dyspnœa. There was occasional hæmatemesis for the last 7 months. On admission there was much cyanosis and dyspnœa, profuse purulent expectoration and cough. He died of heart failure.

M.N. 2843. D.B. 4104. P.M.M. 422. May 29, 1903. Dr. Dreschfeld.

HEART: Hypertrophy. 12 : 62

An example of simple hypertrophy of the heart accompanying arteriosclerosis, especially by the smaller arteries, in a case of chronic interstitial nephritis. The heart weighed 17 ozs. It is firm, and there is a slight increase of subepicardial fat. The wall of the left ventricle is hypertrophied. The cavity is normal. The other walls and cavities of the heart are normal. There is no dilatation. There was no atheroma in aorta, common iliacs or coronary arteries. It was markedly present in the arteries at the base of the brain. The patient, a female aged 34, died from cerebral hæmorrhage. This patient was kept alive for two hours by artificial respiration, but during this period there was no attempt at spontaneous respiration.

M.N. 2837. D.B. 4093. P.M.M. 420. May 28, 1903. Dr. Graham Steell.

HEART: Hypertrophy and Dilatation. 12 : 62 · 1
14 · 1 : 55 · 2
14 · 4 : 55 · 2

The heart weighed 31 ozs. It is normal in contour. All the cavities are dilated and the walls are thickened, especially that of the left ventricle. There was well-marked atheroma of the aorta and of the coronary arteries. The kidneys were granular. (See kidney M.N. 2839—51: 52.2 and aorta M.N. 2838—14·1 : 55·2.)

M.N. 2942. D.B. 4258. P.M.M. 659. Nov. 28, 1904. Dr. Steell.

HEART: Hypertrophy and Dilatation. 12 : 62 · 1

This heart is moderately enlarged, especially on the right side (weight 17 ozs.). It is globular in form. Right auricle: Walls distinctly thicker and firmer than normal. Cavity much distended with p.m. clot. Tricuspid valves normal. Orifice admits 7 finger tips. Right Ventricle: Walls markedly thickened and very firm. Cavity moderately distended with p.m. clot. Pulmonary valves normal. Left auricle: normal. Mitral cusps somewhat more opaque than normal, but not thickened. Orifice admits 4 finger tips. Left ventricle: normal. Aortic valves, aorta and coronary arteries normal. The hypertrophy and dilatation were due to pulmonary emphysema. (See Lung M.N. 2941—25 : 27·3.)

M.N. 2948. D.B. 4261. P.M.M. 661. Dec. 1, 1904. Dr. Wilkinson.

HEART: Hypertrophy and Dilatation (Alcoholism). 12 : 62 · 1 (87 · 1)

The heart weighs 17½ ozs. and shows marked enlargement affecting both sides, but the right side is somewhat more involved than the left, giving a globular shape. The myocardium is of normal colour and consistence. Right auricle: Walls and cavity normal. Tricuspid valve normal. Orifice admitted 4 finger tips. Right ventricle: Walls are thickened and firm. The cavity is moderately dilated and it was distended with red and white clot. The pulmonary valves are normal. The left auricle and the mitral valves are normal. The mitral orifice admitted 3 finger tips. Left ventricle: Walls slightly thickened. Cavity somewhat dilated; aortic valves normal; there is no incompetence; the aorta showed no atheroma or other abnormality; the coronary arteries are normal.

The patient was a male aged 32. There was a history of 3 weeks cough, dyspnœa and cyanosis. He died 3 days after admission. He had a heart with galloping rhythm.

M.N. 2952. D.B. 4298. P.M.M. 678. Jan. 20, 1905. Dr. Graham Steell.

HEART: Hypertrophy and Dilatation. 12 : 62 · 1

The heart is very much enlarged, and weighed 30 ozs. The apex is rounded. The myocardium is of normal colour and consistency. The walls of the right auricle are slightly thickened and the cavity is moderately dilated. The tricuspid valves are normal and the orifice admits 7 finger tips. The walls of the right ventricle are markedly thickened, and the cavity is moderately dilated. The pulmonary valves are normal. The cavity of the left auricle is dilated. The mitral valves are normal. The orifice admits 4 finger tips easily. The walls of the ventricle are distinctly thickened. The cavity is much enlarged. The aortic valves are normal. In the aorta are several large and prominent patches of atheroma. The coronary arteries are normal.

The patient was a male aged 52. The illness was of 15 months' duration. There was cough and dyspnœa. Death was due to cardiac failure.

M.N. 2968. D.B. 4006. August 10, 1902. Dr. Graham Steell.

HEART: Hypertrophy and Dilatation. 12 : 62 · 1

The heart was enlarged and weighed 23 ozs. The myocardium was somewhat friable. All the cavities were markedly dilated and the walls—especially that of the left ventricle—were much hypertrophied. The valves were practically normal, and the orifices were somewhat dilated. The kidneys were granular, and there was general venous congestion, and marked anasarca.

The patient was a male aged 45, who died from cardiac failure.

M.N. 3297. D.B. 4273 B. P.M.M. 667. Dec. 21, 1904.

HEART: Hypertrophy and Dilatation. 12 : 62 · 1

The heart weighed 14 ozs., it shows very slight hypertrophy of the left ventricle and its cavity is slightly dilated. The other cavities are of normal size. It was removed from a man aged 44, who was brought in dead to the M.R.I., and at the autopsy there were found very extensive atheroma of the aorta and a small aneurysm at the lowest part of the descending thoracic aorta which had ruptured into the left pleura and lung. Very slight atheromatous change was found in the coronary arteries. (See lung M.N. 2953—25 : 33 and aorta M.N. 2951—14·1 : 27·1.)

M.N. 3430. D.B. 3989. May 9, 1902.

HEART: Hypertrophy, Dilatation, Thrombus. 12:62·1
12:34

The heart is much enlarged, all the chambers being dilated. Near the apex of the left ventricle is a large thrombus, which lies in a depression formed by a thinning out of the muscular wall. At this point the muscle fibres are to a great extent replaced by fibrous tissue. The thrombus is irregular in shape, and of a grey colour, and at the autopsy was adherent to the cardiac wall by organized tissue. Several smaller thrombi are visible between the bands of the carniform muscles.

The specimen was taken from a male, aged 57. The coronary and cerebral vessels were markedly atheromatous. Cerebral hæmorrhage had occurred, and in the kidneys recent infarcts were present. (See kidney M.N. 2785—51:36·1.)

M.N. 3693. D.B. 4788. P.M.M. 788. Dec. 28, 1905. Dr. Wilkinson.

HEART: Hypertrophy, Dilatation, Fibrinous Pericarditis. 12:62·1
11:54·2

There are seen on the wall of the right ventricle several dots and small strands of firm and firmly attached greyish-red masses, resembling thrombotic vegetations. None were found on the parietal pericardium. Also there are numerous subepicardial punctate hæmorrhages, especially over the infundibulum of the right ventricle. The pericardial sac contained about an ounce of slightly turbid, pinkish yellow, brown fluid, in which were strings and masses of a very light texture of very loosely adherent fibrin. The heart is moderately enlarged by hypertrophy and dilatation of the left ventricle. It weighed 19 ozs.

The patient was a man aged 37, who suffered from chronic interstitial nephritis. (See kidney M.N. 3692—51:53.)

HEART: MALIGNANT TUMOURS.

M.N. 3326. D.B. 3550. June 5, 1897. Dr. Kelynack.

HEART: Lympho-Sarcoma. 12:65·9

The specimen shows a small heart with a rounded flat tumour growth under the epicardium. The growth is apparently secondary to lympho sarcoma of the mediastinum.

Microscopically the tissue is composed of small round cells.

M.N. 3636. D.B. 3919. July, 1901. Mr. Wright.

HEART: Melanotic Sarcoma. 12:65·5

The specimen has been prepared to show several nodules of melanotic sarcoma, which are present on the pericardial and endocardial surfaces of the right side.

No history of the case is obtainable. (For description of stomach and mesentery see M.N. 3637—34:65·5.)

M.N. 3731. D.B. 4874. March, 1906. Dr. Reynolds.

HEART: Melanotic Sarcoma. 12:65:5

The heart has been opened to show the presence of innumerable nodules of melanotic sarcoma in the muscular wall. Some of these growths project as small pea-like bodies on the endocardial surface. (See pancreas from the same case, M.N. 3732—37:65·5.)

HEART: CYSTS.

M.N. 1270.

HEART: Hydatid Cyst. 12:67·4
12:27

At the apex of the left ventricle there is a large cyst which is covered by the outer layer of the pericardium. The cyst wall is smooth and contains several slight depressions and ridges. The left ventricle is dilated. The valves and aorta are normal. The heart has been opened from behind.

HEART: MITRAL ENDOCARDITIS.

M.N. 1244. Dr. Dreschfeld.

HEART: Ulcerative Endocarditis 13·1:55·5
13·1:55·3
13·1:55·6

The heart has been opened anteriorly by an incision passing from the left auricle to the left ventricle between the cusps of the mitral valve. It is slightly enlarged. The left ventricle is dilated. A number of vegetations are present on the wall of the left auricle, on the auricular surface of the mitral valve, on the chordæ tendincæ, and on the papillary muscles. The vegetations upon the auricular wall are large in size, and show numerous superficial erosions. Those on the mitral valve are conical in shape, and fleshy in appearance. The chordæ tendineæ of the aortic cusp of the mitral valve are extensively eroded, and ruptured by the ulcerative process.

M.N. 1245.

HEART: Endocarditis. 13·1:55·6

On the posterior wall of the left auricle are large numbers of villus-like fibrinous vegetations. On the margin of the cusps of the mitral valve are also numbers of fibrinous vegetations. A few vegetations depend from the edge of the mitral valve, and are visible from the inferior surface.

M.N. 1246. D.B. 2449.

HEART: Mitral Endocarditis, Acute and Chronic, Hypertrophy of Left Ventricle 13·1:55·5
13·1:55·6
12:62

The left auricular wall is thinner than normal, and a large number of vegetations are present on the outer wall. The mitral orifice is diminished in size, and altered in shape; the valve itself is more fibrous than normal, and its auricular surface is covered by a large number of villus-like vegetations, some of which appear to be partly organised. The left ventricle shows a considerable amount of hypertrophy. The aortic orifice is normal.

M.N. 1247. D.B. 2453.

HEART: Chronic Endocarditis. 13·1:55·1

On the posterior aspect of the left auricle, there are a number of nodular, reddish-coloured patches. The mitral valve is thickened. The left ventricle is dilated. The chordæ tendineæ show fibrous thickening. The tricuspid valve appears to be normal. The left auricular appendix is dilated.

M.N. 1248.

HEART: Chronic Mitral Endocarditis with Stenosis. 13·1:55·5

The preparation has been dissected to show the orifice of the mitral valve, which is contracted and conical in shape. The valvular segments are irregularly thickened, and adherent laterally. The chordæ tendineæ are thickened, and contracted. The papillary muscles also show fibrous changes. The ventricle is dilated.

M.N. 1249.

HEART: Mitral Endocarditis, Stenosis. 13 1:55·5
13·1:55·6
14·1:55·2

The specimen consists in a part of the heart including the left auricle, a portion of the left ventricle, the commencement of the aorta and the pulmonary artery. The segments of the mitral valve are thickened, especially at their margins, where small warty vegetations exist. The valves are rigid and the orifice is converted into an elongated semilunar slit. The left auricle is greatly distended, while its walls are thickened. The portion of the left ventricle shows hypertrophy of its walls also. The aorta and semilunar valves both show atheromatous thickenings.

M.N. 1252. Mr. Turner.

HEART: Mitral Stenosis. 13·1:55·5

The preparation is a section of the left ventricle. The mitral valve shows fibrous thickening, contraction, and deformity from adhesions. The chordæ tendineæ are contracted, and more fibrous than normal. The two united valves form a funnel-shaped structure.

M.N. 1253. Dr. Dreschfeld.

HEART: Chronic Mitral Endocarditis, Stenosis. 13·1:55·5
13·1:42·9

The mitral valve is very considerably thickened and the chordæ tendineæ are more fibrous than normal. On the auricular surface of both cusps of the mitral valve there are nodules, irregularly distributed, and apparently containing calcareous deposits. The left ventricle is not hypertrophied, but there has evidently been dilatation of its cavity. The aortic valves are slightly thickened.

M.N. 1255. Dr. Cullingworth.

HEART: Mitral Stenosis, Dilatation. 13·1:55·5
12:27

The aortic valves are normal with the exception of the external cusp on which there is a small vegetation. The left ventricle is dilated; the chordæ tendineæ are shortened. The mitral orifice is stenosed, admitting only a medium-sized pencil. Both cusps are very fibrous, adherent laterally, and rigid. All the cavities of the heart are dilated.

M.N. 1388. June 26, 1884.

HEART: Chronic Mitral Endocarditis: Gumma. 13·1:55·1
13·1:22
12:56·3

The valve shows a rounded flat patch of sclerosis which has the appearance of calcification. In the centre of the degenerated area, perforation has taken place (this is indicated by a glass rod). The endocardium of the left auricle shows diffuse thickening and opacity. The ventricular wall is the seat of a fibrous gumma.

M.N. 1514. D.B. 877. August 18, 1889. Dr. Dreschfeld.

HEART: Malignant Endocarditis. 13·1:55·3
13·1:55·6

The specimen is the heart of a child, and shows large, irregular vegetations attached to the auricular surface of the mitral valves near the free border. The rest of the heart is normal.

M.N. 2848. D.B. 4116. P.M.M. 436. July 4, 1903. Dr. Dreschfeld.

HEART: Chronic Mitral Endocarditis with Stenosis. 13·1:55·5
12:62·1

The heart weighed 15 ozs. The enlargement is more marked on the right side than on the left. The apex is rounded, and the cavities are all dilated except the left ventricle, which is normal. The walls are thickened except those of the left ventricle, which are normal. The mitral valve cusps are thick, firm, and adherent along the free borders. The under surface is smooth and nodular. The upper surface has a granular feeling from the presence of a number of calcareous granules. The orifice will barely admit the tip of the little finger. The chordæ tendineæ are much shortened and thickened. There is slight diffuse thickening of the aortic valves and of the free border of the tricuspid valves.

There is a history of rheumatism. Hæmoptysis occurred 4 years ago. Infarcts were found in the kidney and spleen. The patient died from venous engorgement of the lungs.

M.N. 2874. D.B. 4180. P.M.M. 515. Dec. 21, 1903. Dr. Dreschfeld.

HEART: Chronic Mitral Endocarditis. 13·1:55·5
12·1:55·8
12·1:62·1

The heart is markedly enlarged especially on the right side. It weighed 15½ ozs. and was firm. There is a milk spot over the right ventricle and there is a moderate amount of subepicardial fat. The right auricle is normal. The right ventricle walls are thickened and the cavity much enlarged. The left auricle shows dilatation and some hypertrophy. The mitral valve shows thickening of the aortic cusp. Its free edge is embedded in a globular mass of firm, grey tissue, which projects into the cavity of the left ventricle, and which had a few small prolongations on the auricular surface of the valve. The mass is very firm but not of stony hardness. The surface is rough and slightly warty, and in it a few calcareous granules had been deposited. The external cusp is firm and contracted and calcified slightly. Both cusps are firmly adherent to each other by their extremities. The orifice admits a black-lead pencil. The chordæ tendineæ are short and thick, and the musculi papillares are hypertrophied. The left ventricle walls and cavity are normal. There is a pale cicatricial patch on the right side of the left ventricle. The aortic valves

are normal. The liver was "nutmeg" and the spleen was enlarged ($7\frac{1}{2}$ ozs.). There was marked œdema of the face and legs and clubbing of the fingers. There was slight atheroma of the aorta and very slight kidney disease. There was an infarct in the lung. There was a history of rheumatic fever at 6 and shortness of breath for 2 years.

The patient was a woman aged 23.

M.N. 2884. D.B. 4210. April 27, 1904. Dr. C. H. Melland.

HEART: Chronic Mitral Endocarditis with Hypertrophy and Dilatation of the right side. 13·1:55·5
13·1:42·9
12:62·1

The heart is slightly enlarged, especially on the right side, and the apex is rounded. The right auricle is normal. The right ventricle walls are slightly thickened, and the cavity moderately dilated. In the left auricle the walls are much thickened, and the cavity much enlarged. The greater part of the wall has been removed, and the auricular aspects of the mitral valves and opening is displayed. The mitral valve is thickened and rigid, and both cusps are of stony hardness and show an irregular surface due to the deposition of calcareous salts under the endothelium. The mitral opening is much reduced in size. Notes: The lungs were emphysematous. The liver was "nutmeg." The spleen was normal. The kidneys were normal.

From a man aged 45; he had suffered from cough and general debility for 12 months. At the end of the illness there was hæmoptysis. The acute illness lasted 3 weeks with jaundice of 3 days duration. Presystolic and systolic murmurs were heard at the apex.

M.N. 2902. D.B. 3560. Oct. 12, 1897. Dr. Edge.

HEART: Ulcerative Endocarditis affecting the Mitral Valve. 13·1:55·6
13·1:55·3

The specimen shows the heart with the left ventricle laid open. The anterior cusp of the mitral valve has been removed to show the presence of an ulcer in the substance of the posterior valve. The ulcer is surrounded by a plentiful crop of vegetations, the lower part of which forms a ragged tongue-shaped process.

The patient was a child, 1 year old.

M.N. 2956. D.B. 4318. P.M.M. 694. Feb. 9, 1905. Dr. Graham Steell.

HEART: Chronic Mitral Endocarditis and Stenosis. 13·1 : 55·5 / 12 : 62·1

The heart is somewhat enlarged, markedly so on the right side. Weight 16 ozs. It is globular with a rounded apex. The myocardium is firm and of normal colour and consistence. Right auricle: Walls distinctly thickened and cavity enlarged. Small mass of antemortem grey thrombus in the appendix. Tricuspid valves normal. Orifice admits 7 finger tips. Right ventricle: Walls markedly thickened. Cavity moderately enlarged—a small smooth mass of thrombus is found at its apex. Pulmonary and aortic valves normal. Left auricle: Walls markedly thickened. Cavity somewhat dilated and full of red clot. Endocardium throughout shows opaque yellow thickening. The mitral cusps are thickened and adherent at their ends; there is no evidence of calcification nor ulceration. The orifice is "buttonhole" and only admits the tip of the little finger. The thickening is apparently of even distribution. Left ventricle: Walls not thickened. Cavity slightly enlarged. Aorta and coronary arteries normal. (See lung M.N. 2957—25 : 36·1.)

M.N. 2963. D.B. 4304. P.M.M. 681. Jan. 24, 1905. Dr. Graham Steell.

HEART: Chronic Endocarditis and Hypertrophy. 13·1 : 55·5 / 12 : 62·1

The heart weighed 16 ozs. It is moderately enlarged, and of globular contour with rounded apex. The enlargement affects the right side chiefly. The myocardium is pale and firm. The tricuspid valves had numerous grey translucent nodules at the free margins, and the orifice admitted 5 finger tips. The mitral cusps are adherent and thickened, and are covered with a reddish-grey antemortem thrombus; the orifice is of button-hole shape, and admitted the tip of the little finger. The semilunar valves are normal. The left auricle is dilated, its wall thickened, and its endocardium opaque. The left ventricle is slightly, and the right ventricle markedly, dilated, and there was a small mass of antemortem thrombus at its apex. The aorta was normal. (See lung M.N. 2933—25 : 36·1.)

M.N. 3268. D.B. 3588. P.M.M. 1896, No. 190. Nov. 28, 1897.
Dr. Graham Steell.

HEART: Malignant Endocarditis. 13·1:55·6

The heart was enlarged, and weighed 10 ozs. The right side of the heart is dilated, but it is otherwise normal. The left auricle is normal in size, and shows on the postero-external wall a patch of roughening and vegetations. The mitral orifice was dilated and on both segments are present large rough vegetations. There was no ulceration and there was no evidence of old-standing endocarditis. The left ventricle was dilated. There were septic infarctions in the brain, lungs, and kidneys.

The patient gave a history of a week's illness. Five days before death hemiplegia occurred.

M.N. 3345. D.B. 4248. P.M.M. 654. Nov. 4, 1904. Dr. Harris.

HEART: Mitral Endocarditis with Stenosis, Cardiac Hypertrophy, Dilatation, and Thrombus. 13·1:55·5 12:62·1 12:34·1

The heart is much enlarged, but least so in the left ventricle. Its outline is globular. The myocardium is of normal consistence. The right auricle shows hypertrophy and moderate dilatation. The right ventricle has markedly thickened walls and a dilated cavity. The tricuspid orifice admitted 6 finger tips; the cusps and the pulmonary valves were normal. Left auricle: The cavity is largely occupied by an opaque brick-red, friable thrombus, least abundant near the mitral valve. The thrombus is roughly laminated. There is an opalescent layer of thickened endocardium, and between this and the thrombus is a thin white sheet of fibrous tissue. The muscle wall is distinctly hypertrophied. The exposed endothelium is opaque. Both cusps of the mitral valve show marked irregular thickening and calcification. The chordæ are much thickened and shortened, and fibrous changes are seen in the musculi papillares. The mitral orifice would hardly admit the tip of the little finger. The left ventricle shows walls of normal thickness, and some dilatations of its cavity. The aortic opening is normal.

The microscopic section shows a considerable degree of fibrous myocarditis at the site of the thrombus. Partial organization of the clot has taken place.

The patient was a male, aged 42, with doubtful rheumatic history. Death resulted from gradual heart failure.

HEART: AORTIC ENDOCARDITIS.

M.N. 1259. Mr. Turner.

AORTIC VALVES: Endocarditis, Vegetations. 13·2:55·6

The inner surfaces of the semilunar valves are covered by a series of vegetations which mark out the lines of contact when the cusps are closed.

M.N. 1261. Dr. Dreschfeld.

HEART: Acute and Chronic Endocarditis. 13·2:55·1
13·2:55·6
12:62·1

The heart is enlarged, the left ventricle being chiefly affected. The left auricle and the mitral valve are normal. The aortic valves show fibrous thickening and fleshy vegetations. The right coronary and inter-coronary aortic cusps are adherent, and the ridge between the two sinuses of Valsalva has shrunk to such an extent that the cusps appear to form one continuous flap. There is some hypertrophy of the left ventricle.

M.N.1262. P.M.M. 1889, No. 212. Dec. 21, 1889. Dr. Leech.

HEART: Ulcerative Endocarditis, Dilatation. 13·2:55·3
13·2:55·6
12:27

The heart is much enlarged. The left ventricle is greatly dilated, its walls being abnormally thin. The ventricular surface of the mitral valve and the adjacent chordæ tendineæ, also all three aortic cusps, and a portion of the aortic wall, are covered with large, fleshy, irregularly-shaped vegetations, some of which present a rough surface.

M.N. 1328. D.B. 2315. P.M.M. 1893, No. 196. Jan. 18, 1894.
Dr. Graham Steell.

HEART: Chronic Ulcerative Endocarditis. 13·2:55·6
13·2:55·3

The heart lesion is confined to the left ventricle and aortic opening. There is moderate hypertrophy of the wall, and general dilatation. The left posterior aortic valve is, to a large extent, destroyed by the ulcerative process; the right posterior to a less extent; while the anterior valve is still less involved. Some of the vegetations were recent and easily detached. The aorta was healthy except for a few spots of fatty degeneration. The lungs were in a condition of septic pneumonia. The kidneys showed numerous infarctions. The spleen, however, had escaped infarction.

The patient gave a history of ascites 3 months before admission. There was no œdema of the legs. The liver was "hob-nailed."

M.N. 1332. D.B. 822. P.M.M. 1889, No. 21. May 27, 1889. Dr. Harris.

HEART: Malignant Endocarditis. 13·2:55·6
13·2:55·3

The heart weighed 16 ozs. The aortic orifice was markedly incompetent, and on examination it was seen to be almost completely occluded by massive vegetations of a greyish appearance, about the size of marbles, springing from or replacing the aortic cusps and projecting into the lumen. Some of them were deeply ulcerated. The processes had extended into the ventricle over the surface of the anterior mitral cusp. In the aortic wall, close to the coronary sinus there is an ulcer extending almost to the adventitia.

The patient was admitted on March 14th, and died on May 27th. She was aged 32. The lungs were normal, but the spleen and kidneys were studded with infarctions.

M.N. 1501. Dr. Dreschfeld.

AORTIC VALVES: Chronic Endocarditis. 13·2:55·5
13·2:42·9

The specimen consists in the structures surrounding the aortic opening. The valves are sclerosed and calcified, and this has led to their rigidity and to obstruction of the lumen. The deposition of calcareous salts has caused marked unevenness of the surface of the valves; but there are no recent vegetations or ulcerations.

M.N. 2813. D.B. 4027. P.M.M. 362. Jan. 12, 1903. Dr. Graham Steell.

HEART and AORTA: Aortic Endocarditis, Hypertrophy, and Dilatation. 13·2:55·1 14·1:55·2 12:62·1

The specimen shows the heart with the left ventricle and aorta laid open. The heart is very much enlarged—weight 29 ozs. The shape is conical, and the muscle is flabby and paler than normal. The cavities are all much enlarged, the left ventricle markedly so. There is hypertrophy in both ventricles, especially in the left one. The valves are normal, except the aortic, which are rigid and irregularly thickened and contracted. The tricuspid orifice admits 6 fingers; the mitral orifice admits 4 fingers, and the aortic orifice is dilated. The wall of the aorta is very irregular, especially in the region of the valves. The calcareous plates which are formed from the atheroma are partially denuded of endothelium. The orifices of the coronary arteries are much narrowed by the thickening of the aortic walls. The arteries themselves show little evidence of atheroma. The liver was enlarged and somewhat congested, weight 69½ ozs. The spleen was much enlarged, weight 15½ ozs.; it was dark, congested and firm.

The patient died of syncope about an hour after admission to the hospital.

M.N. 2960. D.B. 4278. P.M.M. 672. Jan. 2, 1905. Dr. Dreschfeld.

HEART: Ulcerative Endocarditis. 13·2:55·6 12:62·1

The heart is somewhat enlarged (weight 14 ozs.). It has a globular contour and rounded apex. There is normal subepicardial fat, and a white spot at the apex of right ventricle. The myocardium is of normal colour and consistency. The right auricle and right ventricle show slight dilatation of their cavities. The walls of the right ventricle are slightly thickened. There is also slight enlargement of the cavity of the left ventricle. All the aortic cusps are much swollen and distorted, having a pale yellow, semi-translucent appearance—their free edges are their thickest part, and they are irregularly nodular, and ragged, and firm, but not hard. They are unequal in size. Small, firmly attached, pale vegetations, are sparsely scattered on adjacent parts of the aorta, and the interventricular septum. No deep ulceration is seen. The other valves are normal. The aorta and coronary arteries are normal. The columnæ carneæ on the surface in the left ventricle show marked atrophy. (See spleen M.N. 3294 B—45:36·1) and kidney M.N. 3294 A—51:52·1.)

M.N. 3360. D.B. 4246. P.M.M. 655. Nov. 7, 1904. Dr. Harris.

HEART: Calcification of Aorta and Chronic Aortic Endocarditis. 13·2:55·1 (42·9) 14·1:55·2 14·1:42·9 12:62·1

The heart is moderately enlarged. It weighed 21 ozs. and is conical in shape. The myocardium was somewhat pale. In the aorta are seen a few small patches of atheroma, and just above the valve is a horizontal mass of cauliflower-looking calcareous matter, denuded of endothelium. At a higher level are similar smaller nodules, and these project markedly. The aortic valves are fibro-calcareous in character, leading to marked irregularity, distortion in outline, and almost complete rigidity. Two of the cusps are adherent to each other. The walls of the left ventricle are markedly thickened, and its cavity somewhat dilated. The rest of the heart is normal.

The patient was a male aged 56, who died from chrome poisoning.

M.N. 3400. D.B. 3185. June 1, 1895. Dr. Graham Steell.

HEART: Malignant Endocarditis. 13·2:55·3 13·2:55·6

The history of this case has been lost, but the specimen is of interest, particularly because it shows the formation of a deep ulcer at the base of the aortic valves on the right posterior aspect. On the corresponding portion of the tricuspid valve, which forms the base of the ulcer, a large projecting vegetation has formed.

M.N. 3474. D.B. 4267. Dec. 12, 1904. Dr. Dixon Mann.

HEART: Aortic Stenosis, Hypertrophy with Dilatation, Adhesive Pericarditis. 13·2:55·5 11:55·7 12:62·1

The specimen shows a much enlarged heart, both ventricles being affected. The parietal and visceral layers of the pericardium are adherent to one another, and the parietal layer has been removed at two places in order to show the dense adhesion. The cusps of the aortic valve present chronic fibrous changes, and are very thick, deformed by contraction, and adherent to one another. The orifice of the valve is roughly triangular in shape and much diminished in

size. The heart with the adherent pericardium weighed 22 ozs. The liver and spleen both showed passive congestion. The capsule of the kidneys stripped off easily, and the organs themselves showed no changes other than congestion.

The specimen was obtained from a man, aged 50. When 18 years old, he had an attack of pericarditis. Nine months previous to admission he began to suffer from orthopnœa and œdema of the legs. Systolic and diastolic murmurs were heard at the apex. Pulse was 90, regular, sometimes "Corrigan" in type, and there was marked capillary pulsation.

M.N. 3703. D.B. 4801. January, 1906. Mr. C. Roberts.

HEART: Ulcerative Endocarditis, Hypertrophy. 13·2:55·3
13·2:55·6
13·2:55·1
12:62

The heart is somewhat enlarged, but is conical in shape. The left ventricle has its walls enormously hypertrophied and the cavity seems diminished. The mitral valve is slightly thickened. The aortic valves show extensive ulceration, and on the ulcerated surfaces large irregular vegetations have formed. The cusps show also signs of old inflammatory thickening.

The specimen was obtained at a post-mortem examination ordered by the coroner.

HEART: TRICUSPID ENDOCARDITIS.

M.N. 1502. D.B. 2454. Dr. Renaud.

HEART: Chronic Tricuspid Endocarditis. 13·3:55·1 (42·9)

The margins of the cusps are densely infiltrated with a chalk-like deposit, and with this condition is associated rigidity, and stenosis of the orifice.

M.N. 3524. D.B. 4654. P.M.M. 735. July 22, 1905. Dr. Dreschfeld.

HEART: Malignant Endocarditis affecting the Tricuspid Valves 13·3:55·6

The heart was of normal size and weighed 10 ozs. It was somewhat rounded in shape and very flabby. The myocardium is pale and more friable than normal. The posterior and right cusps of the tricuspid valve are both the site of a large irregularly nodular mass of grey, friable thrombus, which projects on their upper surface into the cavity of the right auricle. The cusps as a whole show some diffuse firm thickening and irregularity. The cavities on the right side of the heart are somewhat dilated. Otherwise the heart is normal.

The patient was a male aged 53. The illness commenced with a rigor nine weeks before death. (See pulmonary artery M.N. 3507—14·2:35.)

HEART: PULMONARY ENDOCARDITIS.

M.N. 1265. Dr. Dreschfeld.

HEART: Malignant Endocarditis of Pulmonary Valve. 13·4:55·6
14·2:55·6

On the left pulmonary cusp are seen large projecting thrombi (vegetations), which give the surface a very ragged appearance, and from this level the process extends along the lumen of the pulmonary artery. There is no sign of chronic inflammation of the valves.

HEART: COMBINED AORTIC AND MITRAL ENDOCARDITIS.

M.N. 1256.

HEART: Mitral and Aortic Endocarditis. 13·1:55·5
13·2:55·1

On the internal and anterior surfaces of the dilated left auricle are numbers of raised yellowish white nodules. The mitral valve is thickened and stenosed from chronic endocarditis. The margins of the cusps show dark-coloured areas, which are ulcerated. The aortic valves are of a dense white appearance, and are thickened from chronic endocarditis. The coronary arteries are quite patent and the aorta is free from atheromatous patches. The heart shows a slight amount of adiposis.

M.N. 1258. D.B. 2448.

HEART: Chronic Mitral Endocarditis with Stenosis, Aortic Stenosis, Dilatation. 13·1:55·5
13·2:55·5
12:27

The specimen shows the left ventricle opened to expose the mitral and aortic valves. The cusps of the mitral valve are thickened, adherent laterally, and the orifice has been reduced to a buttonhole slit about $1\frac{1}{4}$ ins. in length and crescentic in shape. The chordæ tendineæ are also thickened, and slightly contracted. The aortic valves are also thickened, and the inter-coronary and right coronary cusps are adherent at their point of origin from the aortic wall. The coronary vessels are normal. Both ventricles and the left auricle are dilated. The tricuspid valve is slightly thickened.

M.N. 1260. D.B. 2375.

HEART: Endocarditis, Aortic and Mitral. 13·1:55·1
13·2:55·1
13·1:55·6
13·2:55·6

The mitral valve shows thickening and adhesions of the lateral portions of the cusps. On the margin of the cusps there is also a line of recent vegetations. The chordæ tendineæ are slightly contracted, and the mitral orifice is stenosed. The aortic valves are the seat of chronic endocarditis, being whiter and more fibrous than normal. The posterior and external cusps are adherent at the point where they leave the aortic wall. Recent vegetations, somewhat red in colour and demarcating the line of contact when the valves are closed, are present on all three cusps.

M.N. 1263.

HEART: Endocarditis of Mitral and Aortic Valves 13·2:55·1
AORTA: Atheroma. 13·2:55·6
13·1:55·1
13·1:55·6
14·1:27
14·1:55·2
14·1:55·6

The specimen shows the left ventricle opened to expose the mitral and aortic valves: and the aorta opened anteriorly. The left ventricle is slightly hypertrophied, but its cavity is not enlarged. The mitral valve is thickened, and on its ventricular surface are recent fibrinous vegetations. The aortic valves are also thickened, and on their ventricular surface are ragged villus-like vegetations. The aorta is dilated and almost entirely covered with confluent atheromatous patches, the greater number of which show calcification. There are several recent thrombi. The orifice of the anterior coronary is slightly contracted. The pericardium shows patches of chronic pericarditis.

M.N. 1264.

HEART: Chronic Endocarditis, Mitral and Aortic 13·2:55·1
13·1:55·1
13·2:55·3

The mitral valve is thickened by fibrous tissue. The semilunar cusps of the aortic valve are very much thickened, and adherent at their lateral points of attachment, and one of them shows a small congenital perforation, and another a large abscess-like cavity containing thrombus.

M.N. 1283. D.B. 886. Oct. 9, 1889.

HEART: Vegetative Endocarditis. 13·1:55·6
13·2:55·6

The specimen, which is part of the heart of a child, has been prepared to show the fringe of recent vegetations situated on the free edge of the mitral and aortic valves. The cavity of the left ventricle showed globular dilatation, and its endocardium shows a general thickening as compared with that of the right side.

M.N. 1292. D.B. 2180. Dr. Harris.

HEART: Chronic Endocarditis. 13·1:55·5
13·2:55·5
12:62
12·1:53

The specimen consists of a transverse section through the base of the heart. It shows stenosis of both mitral and aortic openings, with adhesions and marked sclerosis of the cusps in each case. There is some roughening and atheroma present, but there are no vegetations. The left ventricle and auricle show marked hypertrophy, and the muscle wall of the left ventricle shows some interstitial change.

The patient was a male aged 22.

M.N. 1297. D.B. 991. P.M.M. 1889, No. 123. Jan. 16, 1890. Dr. Dreschfeld.

HEART: Mitral and Aortic Endocarditis. 13·1:55·5
13·1:55·6
13·2:55·1
13·2:55·6

The heart weighed 13 ozs. The tricuspid orifice admitted the tips of four fingers. The mitral admitted the tip of one finger. The right auricle and ventricle was considerably dilated. The tricuspid and pulmonary valves were normal. The left auricle was considerably hypertrophied, and on the auricular surface of the mitral valve there is a row of well-developed vegetations. The two mitral cusps are united in a conical form, and they are densely sclerosed. The chordæ tendineæ are shortened and thickened. The aortic valves are thickened and covered with vegetations which are partly calcified. Both the mitral and aortic valves showed the signs of stenosis and incompetence. The spleen showed infarction and the kidneys showed chronic granular changes.

M.N. 1326. D.B. 1808. P.M.M. 1891, No. 235. Oct. 17, 1892. Dr. Leech.

HEART: Aortic and Mitral Endocarditis. 13·1 : 55·6
13·2 : 55·6
13·1 : 55·3

The right side of the heart was normal except for a moderate dilatation of auricle and ventricle. The left auricle is slightly dilated, and its walls thickened. The mitral orifice is stenosed and the valves are much indurated. There is, however, only a very small amount of vegetations on the mitral valves. The aortic valves are incompetent. The valves are misshapen, and from their edges hang loose vegetations. The process of inflammation has extended to the aortic segment of the mitral valve. There is a history of palpitation for some years, of cough for 6 months before admission.

The patient, a male aged 26, was admitted on May 11th, and died on Oct. 16, 1892. The temperature was irregular, rising to 102°F., and in August to 104°F., when there was pain in the splenic region. A large infarct was found in the spleen at the post mortem.

M.N. 1335. D.B. 1135. P.M.M. 1889, No. 230. Aug. 9, 1890. Dr. Ross.

HEART: Ulcerative Endocarditis. 13·1 : 55·6
13·2 : 55·6
11 : 54·2
12 : 62·1

The heart weighed 22 ozs. Its pericardial surface is covered with fibrinous exudate. The posterior cusp of the mitral valve shows vegetations on its auricular surface, and extending upwards for an inch on the posterior wall of the left auricle. The anterior cusp is thickened at the margins and presents a large number of friable vegetations on the auricular surface of the margin of the valve and on the ventricular surface. The interstices between the chordæ tendineæ are filled with vegetations. Two perforations ($\frac{1}{3}$ inch apart) are seen $\frac{1}{4}$ inch from the margin of the anterior cusp. The right one has perforated the valve, and its margin is covered with minute vegetations; the left one passed into an aneurysm, of the size of a bean, projecting on the auricular surface of the valve, and is perforated near its apex. The right and left aortic cusps are thickened and united to form a shallow sinus by the thickening and calcification of their common point of attachment, which is displaced downwards to the

base of the cusp—its normal site being occupied by calcified atheromatous patches. Each cusp presents a large oval perforation surrounded by minute vegetations. The inter-coronary cusp presents two masses of vegetations of the size of a bean, and between them an ulceration extending completely through the cusp to the base. The wall of the aorta above this cusp is covered with a mass of vegetations. The remainder of the aorta presents raised, pale, discrete patches of thickening. The left ventricle is dilated and hypertrophied, reaching $\frac{7}{8}$ inch in thickness. The right ventricle is also dilated and hypertrophied. The orifices of the tricuspid and mitral valves admit 4 and 3 fingers respectively. The aortic valves were incompetent, the tricuspid and pulmonary valves normal, and the myocardium somewhat pale and soft.

The patient was a male, aged 35. At the autopsy there were found infarct of spleen, nephritis and early cirrhosis of the liver.

M.N. 1337. D.B. 2376. Dr. Harris.

HEART: Ulcerative Endocarditis. Dilatation. 13·1:55·6
13·1:55·3
13·2:55·1
12:27

The specimen has been prepared in order to show the left ventricle and its orifices. The mitral valve is slightly thickened. On the left and anterior portion of the posterior cusp, and on the aortic cusp, there are a number of vegetations. The chordæ tendineæ are also the seat of numerous vegetations, and exhibit destructive changes. On the ventricular surface of the mitral valve there are also vegetations, due probably to the whipping back of the broken chordæ. One large, fleshy, conical vegetation which hangs downwards into the ventricle from about half an inch below the cusps of the aortic valve presents superficial ulceration. The cusps of the aortic valve show chronic fibrous changes, but there is no destruction of tissue. The ventricle is considerably dilated.

The patient, a man aged 37 years, had an illness of six months' duration. There had been no previous rheumatic attacks.

M.N. 1505. D.B. 2129. P.M.M. 1893, No. 113. July 6, 1893.
Dr. Graham Steell.

HEART: Combined Mitral and Aortic Endocarditis. 13·1:55·6
13·2:55·6
12:62·1

The heart, especially the left ventricle, was greatly enlarged, chiefly in its transverse diameter. It weighed 15 ozs. The details of the heart examination are the following:—Right auricle dilated, walls slightly thickened, tricuspid orifice admits 4 fingers, valves normal. Right ventricle dilated and hypertrophied to a moderate extent. Pulmonary orifice normal. Left auricle dilated and hypertrophied. Mitral orifice stenosed, the valves forming a funnel-shaped structure. Left ventricle dilated to a marked degree, hypertrophy slight. The aortic opening is stenosed. The valves, especially towards their free border, are thickened and indurated with irregular nodular formation. The right posterior cusp is most extensively involved and a portion of it hangs free, as a tag. The anterior cusp and the left posterior cusp are partially fused. There is very little sign of calcification.

The patient, a female aged 36, died of heart failure.

M.N. 2944. D.B. 4260. P.M.M. 660. Nov. 30, 1904. Dr. Graham Steell.

HEART: Chronic Mitral Endocarditis. 13·1:55·5
13·2:55·1
12:62·1

The heart shows moderate enlargement on the right side. It weighs 13 ozs. The apex is rounded. The whole heart has a tendency to globular contour. The myocardium is of firm consistence and of normal colour. Right auricle: The walls are of normal thickness, the cavity is much enlarged and was filled with p.m. clot. The tricuspid valves are slightly more opaque than normal. The orifice admits 4 finger tips easily. Right ventricle: The wall is moderately thickened. The cavity was moderately enlarged, and was full of grey and red clot. The pulmonary valve is normal. Left auricle: The walls are markedly thickened. The cavity is of normal size. The endocardium is much thickened and opaque throughout. The mitral valves are much thickened, firm, and of an opaque yellow colour. The orifice is much narrowed, of a conical shape, and only admits a black lead pencil. The surface of the valves is only slightly

irregular—apparently no calcification has taken place. The chordæ are much shortened and thick. The left ventricle walls are normal and the cavity slightly enlarged. The aortic valves show slight irregular thickening, opacity and increased firmness. The aorta and coronary arteries are normal.

The patient was a girl of 19. She had rheumatic fever when she was 7 years old. Her last illness commenced 2 years before death with dyspnœa on slight exertion. There was hæmoptysis early in the illness. Later there were ascites and other dropsies and bronchitis. (See lung M.N. 2945—25 : 26·1.)

M.N. 2958. D.B. 4242. P.M.M. 650. Oct. 26, 1904. Dr. Graham Steell.

HEART: Subacute Endocarditis in a case of Gonorrhœa

13·1 : 55·6
13·1 : 55·1
13·2 : 55·6
13 : 55·3
12 : 62·1

The heart was moderately enlarged, especially on the right side. It weighed 17 ozs., and had a rounded contour. The myocardium was pale, but moderately firm. Right auricle: The walls are normal and the cavity slightly dilated. The tricuspid valves are normal. The orifice admits 5 finger tips. Right ventricle: The walls are thickened. The cavity is much dilated. The pulmonary valves are normal. Left auricle: The walls are normal. The cavity is slightly dilated. Mitral valve: On the aortic cusp, which is slightly thickened though not very firm, at its free margin is a large pendulous, clay-coloured, irregular nodular vegetation, $\frac{3}{4}$ inch in length, and about $\frac{3}{8}$ inch in diameter. It hangs into the cavity of the left ventricle—it is firmly adherent, and though firm, it is not hard. The other cusp is normal. At the auricular attachment of the cusps there is an almost complete ring of loosely attached, minute, friable, red vegetations. The mitral orifice admits 4 finger tips. The left ventricle is moderately dilated. Its walls are somewhat thickened. At the centre of the inter-ventricular septum is a shallow, circular ulcer, 4 in. in diameter, with soft edges and base—the edges are slightly swollen. Its site corresponds with the level of the thrombus on the mitral cusp. A small mass of antemortem thrombus is seen at the apex of the cavity. Aortic valve:

On each cusp at the centre of its ventricular aspect, and near the free margin, is a somewhat pyramidal mass of thrombus with an irregular surface. This mass is soft, but tough and firmly attached. The aorta and coronary arteries are normal.

The patient was a male aged 20. There was a history of gonorrhœa, but no rheumatism. The illness had lasted 2 months. He had gonorrhœa 6 months previously, and died from croupous pneumonia.

M.N. 3257. D.B. 1821. P.M.M. 1893, No. 4. Nov. 7, 1892. Dr. Harris.

HEART: Malignant Endocarditis.

13·1:55·3
13·2:55·1
13·2:55·6
14·1:27
12:62·1

The heart is much enlarged on both sides. All the cavities are dilated—as are also the auriculo-ventricular orifices. The left ventricle is hypertrophied. The aortic valves are much puckered and distorted, and this has evidently led to much regurgitation. They are the seat of numerous soft, red vegetations, and on the aortic surface of the mitral valve is a somewhat circular perforation to whose margins are attached vegetations. The coronary arteries are narrowed at their mouths, but there is no sign of atheroma along their course. The arch of the aorta is the seat of an aneurysmal dilatation, which has involved the orifices of the innominate and left carotid arteries. In none of these large branches is there any sign of atheroma; moreover, the aorta beyond the origin of the left subclavian artery is free from atheroma.

The patient was a female, aged 50.

M.N. 3283. D.B. 3643. Oct. 22, 1897. Dr. Graham Steell.

HEART: Mitral and Aortic Endocarditis. 13·1:55·5
13·2:55·1
12:27

The specimen shows a heart, of which the whole of the wall of the right ventricle, and part of the left ventricle, have been removed. The heart is dilated, but the walls show very slight hypertrophy. The mitral valve is thickened, and the orifice stenosed, so that it has become oval in shape, and about half-an-inch in diameter. The margins of the two cusps of the mitral valve are adherent. Some of the chordæ tendinæ are ruptured, and the others thickened and shortened. The cusps of the valves of the aortic orifice are thickened irregularly. They are contracted and united; the orifice is stenosed, and there are patches of calcareous infiltration.

The patient was a man aged 39 years.

M.N. 3311. D.B. 4368. P.M.M. 702. Mar. 27, 1905. Dr. Graham Steell.

HEART: Acute Vegetative Endocarditis of Aortic and Mitral Valves, Chronic Aortic Endocarditis, Chronic Mitral Endocarditis with Stenosis, Cardiac Hypertrophy and Dilatation. 13·2:55·6
13·2:55·1
13·1:55·6
13·1:55·5
12:62·1

Notes: The heart weighs 17 ozs., is moderately enlarged, and had a rounded outline. There is a moderate excess of subepicardial fat, and a large milk spot over the front of the right ventricle. The myocardium is of normal colour, but was friable, and the heart as a whole was very flabby. All the cavities are somewhat dilated, and there is evidence of hypertrophy of their walls throughout. The mitral cusps are diffusely thickened, but not to a great extent, and their extremities are adherent, leading to contraction of the mitral orifice so as to allow of the passage of the tip of only one finger. On the auricular aspect is an incomplete ring of small friable vegetations. The tricuspid valves are also slightly opaque, and the orifice admitted 4 finger tips. The aortic cusps are diffusely thickened, opaque, and firm, but are not distorted. Near the middle of the ventricular aspect, on each cusp, is a small mass of friable, grey vegetations. A few small patches of atheroma are found in the aorta. The pulmonary valve is normal.

The patient was a female aged 47, with a history of rheumatism. There was general passive congestion or dropsy. The spleen weighed 6 ozs. Hæmorrhagic infarcts were found in both lungs. Death was due to cardiac failure.

M.N. 3373. D.B. 4379. P.M.M. 708. Apr. 18, 1905. Dr. Graham Steell.

HEART: Chronic Aortic and Mitral Endocarditis, Cardiac Hypertrophy, Dilatation. 13·2:55·1
13·1:55·1
12:62·1

The heart is moderately enlarged. It weighed 24 ozs. The apex is rounded and the myocardium is firm and of normal colour. The aortic cusps are all much thickened, firm, and rigid, with irregular outlines. A few patches of atheroma were found in the aorta. Both cusps of the mitral valve are much thickened and opaque, they are adherent at their extremities, their surface is smooth, the chordæ are long, and the orifice admitted 2 finger tips easily. The other valves are normal. The tricuspid orifice admitted 6 finger tips easily. All cavities are dilated, and especially that of the left ventricle. The walls of the cavities—all except the right auricle—show marked hypertrophy. The endocardium of the left auricle is diffusely thickened and opaque.

The patient was a male aged 50. He died from aortic and mitral regurgitation with gradual heart failure. Acute sero-fibrinous pleurisy had set in before he died.

M.N. 3388. D.B. 3641. P.M.M. 1897, No. 10. Nov. 23, 1897.
Dr. Graham Steell.

HEART: Ulcerative Endocarditis. 13·2:55·3
13·2:55·6
13·1:55·6

The auricular surface of the mitral valve shows a great number of small, reddish-coloured vegetations, and similar but smaller vegetations are present on the margins of the mitral valves. On the ventricular surface of the aortic flap of the mitral valve, the chordæ tendineæ, the ventricular surface of the aortic valves, and the internal surface of the aorta, are seen abundant fleshy exuberant vegetations, and those on the aortic and mitral valves are continuous. The external mitral valve is eroded and ruptured, and the internal valve is entirely covered with vegetations. A small vegetation is present immediately above the opening of the anterior coronary artery.

M.N. 3552. D.B. 4660. P.M.M. 737. July 25, 1905. Dr. Graham Steell.

HEART: Chronic Mitral Endocarditis and Stenosis, Chronic Aortic Endocarditis, Hypertrophy and Dilatation. 13·1 : 55·5 / 13·2 : 55·1 / 12 : 62·1

The heart is slightly enlarged, and weighs 13 ozs. Its contour is rounded, and the myocardium is of normal colour and consistence. The mitral cusps are thickened and firm, and their extremities are adherent. The orifice just admits one finger tip; the chordæ are not thickened. In the anterior part of the wall of the left ventricle, corresponding to the attachment of the mitral cusps, is seen a hard elongated nodule of calcification. The left ventricle is normal, but all the other cavities show some degree of dilatation, and the walls of the left auricle and right ventricle are thickened. The aortic valves are slightly thickened and firmer than normal, and there is well marked adhesion between the cusps. The pulmonary and tricuspid valves are normal. The aorta and coronary arteries are normal.

The patient was a male aged 39, who was admitted to the Infirmary in a state of collapse and cyanosis, and died within 8 hours. At the autopsy evidence of old infarcts was found in the kidneys. (See kidney M.N. 3553—51 : 36.)

M.N. 3656. D.B. 4709. P.M.M. 761. Oct. 20, 1905. Dr. Graham Steell.

HEART: Ulcerative Endocarditis. Chronic Mitral Endocarditis 13·1 : 55·6 / 13·1 : 55·1 / 13·2 : 55·6 / 13·2 : 55·1 / 12 : 62·1

The heart weighed 15 ozs., it was somewhat globular. The myocardium was pale and anæmic, but not friable. The mitral cusps are diffusely thickened, opaque and firm; the auricular surface is the seat of very numerous and irregularly distributed vegetations, many of which are minute, but one is very long and hangs down for an inch into the cavity of the left ventricle. The orifice admits 2 finger tips. All the aortic cusps are somewhat irregularly thickened along their free margins, and in the centre of each are thick, irregular vegetations of various sizes. The left ventricle is somewhat dilated. The left auricle is much dilated, its walls are distinctly hypertrophied, and its endocardium is diffusely opaque and thickened. The cavities of the right side are

also somewhat dilated. The tricuspid and pulmonary valves are normal. The aorta and coronary arteries are normal. (See lung M.N. 3657—25 : 54·2, and spleen M.N. 3658—45 : 36.)

From a male aged 32. No history of rheumatism, chorea, scarlatina, gonorrhœa or influenza. He began to be ill in May, 1905, with headaches and shortness of breath. When admitted to M.R.I. on August 4th, 1905, he had œdema of feet, shortness of breath, pyrexia, enlarged liver and spleen, systolic and diastolic murmurs over the apex. His temperature became irregular and of a hectic type; sweating was a prominent feature. On several occasions he spat blood; sometimes he had attacks of pain in the spleen, once he had a rigor. Ascites supervened 3 weeks before his death on Oct. 19, 1905, from exhaustion.

M.N. 3704. D.B. 4800. P.M.M. 796. Jan. 22, 1906. Dr. Graham Steell.

HEART: Chronic Mitral and Aortic Endocarditis, Adhesive Pericarditis, Hypertrophy, and Dilatation 13·1 : 55·5
13·2 : 55·5
11 : 55·7
12 : 62

The specimen consists of a horizontal section taken through the heart at the level of the valves. The heart was very much enlarged and weighed 38 ozs. Its contour was markedly rounded. The pericardium is diffusely thickened and opaque, and is universally adherent. The myocardium was dark, and exuded dark blood, but felt firm. The cusps of the mitral valve are irregularly thickened, opaque and very rigid, with here and there particles of calcareous matter in their substance. The extremities of the cusp are firmly adherent; the chordæ tendineæ are thickened. The mitral orifice is crescentic in shape and admits two finger tips. All the cusps of the aortic valve are much thickened and rigid also, and their outline is very irregular; the aortic orifice is much diminished. All the cavities of the heart are dilated and there is marked hypertrophy of the walls throughout.

The patient was a male aged 24. He died from gradual cardiac failure. The kidneys had an œdematous appearance and showed fat in the cells of the collecting tubules, but none was present in those of the tubules of the cortex.

HEART: COMBINED AORTIC, MITRAL, AND TRICUSPID ENDOCARDITIS.

M.N. 1300. D.B. 1527. P.M.M. 1891, No. 179. June 27, 1902.
Dr. Graham Steell.

HEART: Tricuspid, Mitral, and Aortic Endocarditis with Stenosis. Adhesive Pericarditis. 13·1:55·5
13·2:55·5
13·3:55·5
11:55·7

The heart is firmly adherent to the thickened pericardium. The right auricle is much enlarged and very much hypertrophied. The tricuspid orifice is markedly stenosed, admitting one finger only. The edges of the valves are sclerosed and rigid, but free from vegetations. The right ventricle is somewhat enlarged, and its walls are soft and flabby. The pulmonary orifice and valves are normal, and the left auricle is dilated and its walls hypertrophied; white clot was found adherent to the wall on the outer side of the cavity. The mitral opening is extremely stenosed—the valve being cartilaginous in character. The left ventricle is dilated, but not markedly thickened. The aortic opening is stenosed and reduced to a mere triradiate slit, and the valves are incompetent. The aorta is healthy.

The patient, a female aged 29, gave a history of rheumatism at the ages of 7, 14, 20 and 25. Hemiplegia was present and the liver showed cardiac cirrhosis. (See *Medical Chronicle*, 1892, p. 323.)

M.N. 2711. D.B. 3975. Feb. 22, 1902. Dr. Harris.

HEART: Tricuspid, Mitral, and Aortic Endocarditis. 13·1:55:5
13·2:55·5
13·3:55·5
12:62·1

The specimen has been prepared to show the condition of the valves. The tricuspid valves are thickened and there is a considerable degree of stenosis. The right auricle is greatly dilated and its walls are hypertrophied. The

mitral valves are sclerosed and thickened, and united to form a funnel. The stenosis here was very pronounced, as only the tip of the little finger could be passed through the orifice. The aortic cusps are thickened and fused together so as to cause marked stenosis. The myocardium of the ventricles is slightly hypertrophied and there is some degree of dilatation especially on the right side. The patient was a male aged 22, who gave a history of rheumatic fever 8 years previously. He suffered from emphysema and chronic bronchitis. The lungs showed œdema and infarction.

M.N. 2821. D.B. 4064. P.M.M. 402. May 6th, 1903. Dr. Harris.

HEART: Mitral, Aortic, and Tricuspid Endocarditis.

13·1:55·6
13·2:55·6
13·3:55·6
12:62·1
11:55·1
11:54·2

The heart is enlarged and weighs 22 ozs. The apex is round and the heart globular, enlargement being on both sides, in auricles and ventricles. The epicardium is thickened throughout. The cavities are all dilated, especially the ventricle. The mitral cusps show recent vegetations near the margin of the flaps (auricular surface). Similar vegetations are present on the ventricular surface of the aortic cusps. The tricuspid shows a few vegetations on the auricular aspect of the cusps. The pulmonary valves are normal. There is diffuse thickening and opacity of the mitral cusps. The aorta and coronary arteries are normal. Notes: Hæmorrhages in right lung; liver "nutmeg"; spleen only $4\frac{1}{2}$ ozs.; kidney congestion. There was very marked œdema of the lower limbs and of the dorsum of the hands; face was puffy; lips were cyanosed. There was a history of chorea and inflammation of the heart when 8 years old.

The patient, a male aged 23, was spare and anæmic. The murmurs were double aortic, systolic and diastolic apical.

M.N. 3296. D.B. 4297. P.M.M. 680. January 17, 1905. Dr. Graham Steell.

HEART: Acute Endocarditis of Aortic, Mitral and Tricuspid Valves. Chronic Aortic Endocarditis. Adhesive Pericarditis. Cardiac Dilatation and Hypertrophy.

13·1 : 55·6
13·2 : 55·6
13·3 : 55·6
13·2 : 55·1
11 : 55·7
12 : 62·1

The heart is somewhat enlarged on both sides, and has a globular outline with very much rounded apex. It weighed 11 ozs. The sub-epicardial fat is small in amount. On the anterior wall, corresponding to the lower half of the inter-ventricular septum, is a broad patch of fibrous adhesion uniting the two layers of pericardium. The myocardium is of normal colour and consistency. The aortic cusps are thickened, opaque, and firm, and two of the cusps are adherent by firm fibrous union. Along their free edges is a complete ring of minute vegetations. On the auricular aspect of the mitral cusps is seen also a ring of similar vegetations near the free margins. The mitral orifice admitted 4 finger tips. The tricuspid valves show also strands of similar vegetations, and the tricuspid orifice admitted only 2 finger tips. The pulmonary valves are normal. There is moderate dilatation of all the cavities, and the walls of the cavities on the right side show some degree of hypertrophy. Atheromatous patches are found in the aorta.

The patient was a male, aged 14. No history of rheumatism, chorea, or scarlet fever.

ARTERIES: CONGENITAL LESIONS.

M.N. 3762. D.B. 4867. March 7, 1906. Mr. Roberts.

AORTA: Congenital Stenosis, Aneurysm. 14·1:12·6
14·1:27·1 (21·7)
13·2:12·1
12:27

The specimen has been prepared to show a congenital stenosis of the aorta which has resulted in the formation of an aneurysm. The descending part of the arch of the aorta has been partly laid open. About an inch beyond the origin of the left subclavian artery the lumen of the aorta is narrowed and just admits the blue glass rod which has been placed along it. On the concave side of the arch at this point the obliterated ductus arteriosus can be seen attached. The aorta on the proximal side of the stenosis has been dilated to form a large, rounded aneurysm, the internal lining of which has ulcerated on the inner and posterior aspect. In the centre of this area of ulceration the sac has ruptured into the posterior part of the pericardium. The heart is considerably dilated and hypertrophied, and the aortic valve has only two cusps.

The patient was a male aged 20 years, who died suddenly in the street. Some months previously he had been treated for palpitation of the heart, which had been attributed to cigarette smoking. Up to the time of his death he had been able to carry on the occupation of a bicycle repairer. At the post mortem examination the pericardium was filled with blood. Apart from palpitation he had never suffered in any way.

ARTERIES: RUPTURE.

M.N. 1404.

HEART: Lipomatosis and Rupture of Aorta. 14·1:21·7
14·1:55·2
12:42·3

The specimen shows an excess of adipose tissue in the auriculo-ventricular groove. The left ventricle is slightly dilated, its walls are somewhat thinned. Above the posterior cusp of the aortic valve are numerous patches of atheroma, and rupture of the aorta has taken place about $\frac{1}{2}$ inch above the posterior cusp.

M.N. 1481.

FEMORAL ARTERY: Incised Wound. 14·7:21·7

The artery has been severed at a point where it gives off a large branch.

M.N. 2750. D.B. 3065. P.M.S. 1892, No. 160. March 6, 1895. Mr. Platt.

ABDOMINAL AORTA: Traumatic Rupture. 14·1:21·7

The vessel is ruptured $2\frac{1}{2}$ ins. below the level of the renal arteries; the two internal coats being lacerated, the external coat remaining intact. At the autopsy, the effusion of blood extended from the left loin to the pelvis, and for about 4 ins. laterally from the vertebral column.

The patient was a man aged 20. A gas meter fell on his abdomen, and apparently crushed the aorta as it lay on the edge of a vertebra.

M.N. 3162. Mr. Platt.

POPLITEAL ARTERY: Rupture. 14·7:21·7

The specimen shows a dissection of the popliteal artery and vein. Immediately above its bifurcation, the artery has been completely ruptured, and the ends are separated by an interval measuring a third of an inch. There is a considerable amount of blood extravasation around the vessels at the site of rupture.

The patient was a man aged 28 years, who had an oblique fracture of the tibia at the junction of the middle and lower thirds, and a fracture of the fibula at a higher level. Gangrene of the limb followed, and amputation was performed 7 days after the injury.

M.N. 3399. D.B. 4238. P.M.S. 400. Oct. 11, 1904.

AORTA: Rupture. 14·1:21·7

The wall shows some atheromatous change, but this is by no means extensive, nor are the patches large or prominent. No part of the aorta appears especially affected, and there is no evidence of calcification nor signs of local dilatation. An inch beyond the origin of the left subclavian artery, is an almost completely annular laceration, only a small tag $\frac{1}{4}$ inch broad at the upper aspect remains to unite the aorta. The rupture led to a communication with the left pleura by a very large laceration. The heart was normal. There is a well-marked milk spot over the right ventricle.

The patient was a male aged 65.

AORTA: ANEURYSM.

M.N. 430. D.B. 725.

DESCENDING AORTA: Aneurysm. 14·1:27·1
93:41
14·1:34

The specimen shows a portion of the vertebral column with the descending aorta attached. The aorta is markedly atheromatous, and on the posterior aspect a large aneurysm has formed, and by pressure on the vertebral column has caused extensive erosion of the bones. The inter-vertebral discs in this case are less affected than the bony tissue of the bodies of the vertebræ. In the upper part of the sac, on the left side, a flaky deposit of blood-clot may be seen in the form of laminæ.

M.N. 431.

DESCENDING AORTA: Aneurysm, Erosion of Vertebrae. 14·1:27·1
14·1:55·2
93:55·3
93:41

The specimen shows the descending thoracic aorta, and on its posterior surface an aneurysm has formed, saccular in shape, and attached by fibrous adhesion to the vertebral column. Into the cavity of the aneurysm the prominence of the vertebral column projects, and it is found that the pressure of the aneurysm has caused marked atrophy of the bone. In a less degree there has been atrophy of the intervertebral discs, the outer borders of which project for a considerable distance beyond that of the bodies of the vertebræ. There are numerous patches of atheroma in the wall of the aorta,

M.N. 1126.

DESCENDING AORTA: Aneurysm perforating the Oesophagus and left Bronchus. 14·1:27·1
24:22
33:22
14·1:55·2

This specimen shows the arch of the aorta, the left bronchus, and a portion of the œsophagus. In the aortic wall are a few patches of moderately advanced atheroma. At the commencement of the descending thoracic portion, a small aneurysm has been formed, into the opening of which the wall of the aorta passes gradually, and it has become puckered and folded in the process. The cavity contains blood-clot. The aneurysm has perforated into the left bronchus by a heart-shaped opening, the edge of which consists of everted mucous membrane. It has also perforated into the œsophagus by a large, irregularly-shaped aperture. The pressure of the aneurysm has caused atrophy of the œsophageal wall over a large area.

M.N. 1236. D.B. 1430. P.M.M. 1891, No. 111. Feb. 25, 1892.

Dr. Graham Steell.

ASCENDING AORTA: Aneurysm. 14·1:27·1
HEART: Fibrinous Pericarditis. 11:54·2

The specimen shows a large saccular aneurysm situated on the first part of the aorta. It communicates with the lumen of the artery by a small rounded aperture, about the size of a shilling, and the edges of this opening are quite smooth. The inner lining of the aneurysmal sac shows the remains of blood-clot. The walls of the aneurysm are thin, but there is no rupture, and on the outer aspect it has formed firm adhesions to the lung. The heart is slightly enlarged and the pericardium is roughened as a result of fibrinous inflammation.

The patient was a male aged 45.

M.N. 1391. D.B. 186. January, 1886. Dr. Leech.

AORTA and INNOMINATE ARTERIES: Saccular Aneurysm with perforation of the Oesophagus. 14·1:27·1 33:22

At the junction of the transverse and ascending portions of the aorta is a large saccular aneurysm, which has been opened posteriorly to show the presence of a stratified thrombus which presents no evidence of organization. The wall is thin, fibrous, and anteriorly is partly formed by fusion with the pleura, and adjacent lung tissue. The rupture has occurred into the œsophagus. A second saccular aneurysm is present on the side of the innominate artery, about $\frac{1}{4}$ inch above the point where it leaves the aorta. For fully $\frac{1}{2}$ inch the artery shows considerable dilatation.

M.N. 1392. D.B. 1323. Dr. Dreschfeld.

ARCH OF AORTA: Aneurysm. 14·1:27·1
TRACHEA: Perforation. 23:22

The aneurysmal dilatation commences at the junction of the ascending and transverse portions of the aorta, and extends to the point at which the left subclavian and carotid arteries arise, the dilatation being principally located in the right half of the transverse portion. The aneurysm is saccular in type, and contains a small amount of unorganised clot. The walls are irregular in thickness and to the posterior portion of the aneurysm, the pleura and adjacent tissue of the right lung are adherent. The aneurysm has ruptured into the trachea at its bifurcation, and into the mediastinal tissues. The trachea shows catarrhal inflammation round the irregular area of perforation.

M.N. 1393. D.B. 2456.

ASCENDING AORTA: Aneurysm. 14·1:27·1
ŒSOPHAGUS: Perforation. 14·1:34·1
TRACHEA: Ulceration. 33:22 23:55·3

A saccular aneurysm about 2 ins. in length is present in the ascending portion of the aorta, partly involving the innominate artery. The transverse portion of the aorta shows also an oval aneurysm, arising at the area from

which the left carotid and subclavian branches arise. The contents consist of laminated clot somewhat loosely adherent. The wall is very thin, and is at one place slightly adherent to the clot; a portion of it has been removed to display the contents. Perforation of the œsophagus has occurred in the form of a large oval aperture, and through it can be seen the clot in the cavity of the aneurysm. The trachea shows evidence of catarrhal inflammation, with formation of minute ulcers. It is seen that in consequence of the aneurysm the direction and outline of the aorta have undergone considerable modification. The descending aorta is cut across below the expansion of the larger aneurysm.

M.N. 1394.

ARCH OF AORTA: Aneurysm. 14·1:27·1
RIBS: Erosion. 95:41

The specimen shows the anterior portion of the aneurysmal sac, which has extended from under the right clavicle and first rib beneath the pectoral muscles. The second rib has been eroded. The contents of the sac consist of laminated clot; the wall is formed by modified arterial coats.

M.N. 1403.

ARCH OF AORTA: Atheroma, Aneurysm. 14 1:27·1
HEART: Hypertrophy and Dilatation. 14·1:55·2
12:62·1

The heart is enlarged. The left ventricle, the right ventricle, and the right auricle, are dilated. The aneurysm commences just above the aortic valve, and extends to about an inch and a half beyond the point where the left subclavian branches. It involves about six inches of the aortic wall. The orifice of the innominate artery is about four inches from the aortic valve, and the innominate left carotid and left subclavian are each separated by about an inch. The wall of the aneurysm shows various fibrous adhesions, and at one point is closely adherent to the trachea and large bronchi. The contents consist chiefly of unorganised blood-clot. There are several saccules. The aorta itself is studded with patches of atheroma.

M.N. 1406.

ARCH OF AORTA: Aneurysm. 14·1:27·1
OESOPHAGUS: Perforation. 33:22

The heart is small in size. The aneurysm commences at the junction of the ascending and transverse portions, and extends to the commencement of the descending portion. The sac extends posteriorly, and has perforated into the œsophagus, on whose mucous membrane is an ulcer about the size of a shilling, with a small round opening in its floor.

M.N. 1407. Dr. Roberts.

ASCENDING AORTA: Intra-pericardial Aneurysm and Rupture into Pulmonary Artery. 14·1:27·1 (21·7) 14·2:22

The aorta presents numerous small, irregular nodules of atheroma. The aortic valves are slightly thickened. The orifice of the posterior coronary artery is slightly diminished in size. The aneurysm arises at the level of the attachment of the anterior and internal cusps of the aortic valve. The orifice of the dilatation is about three-quarters of an inch in breadth, and the aneurysm forms a sac with two divisions: one passing behind the aorta, the other passing forwards, bulging into the pulmonary artery just above the internal and posterior cusps, and showing two openings on its inferior aspect.

M.N. 1411. Dr. Dreschfeld.

ASCENDING AORTA: Aneurysm and Atheroma. 14·1:27·1
HEART: Hypertrophy and Dilatation. 14·1:55·2 12:62·1

The heart is enlarged, the left ventricle being dilated and hypertrophied. The aneurysm occurs about an inch and a half above the level of the aortic valves. The anterior and superior aspects are chiefly affected, and the dilatation extends to the point where the left subclavian arises. The junction of the transverse and descending portions appears to be slightly constricted. The distance of the aortic cusps from the termination of the aneurysm is about seven inches. There are several artificial ruptures. The wall is thickened, fibrous, and has apparently been adherent to the adjacent tissues.

M.N. 1415.

ARCH OF AORTA: Aneurysm and Atheroma. 14·1:27·1
HEART: Dilatation. 14·1:55·2
12:27

The greater portion of both the right and left auricles has been removed to display the dilated mitral and tricuspid orifices. Both the ventricles are dilated. The aneurysm is saccular in type, arises just above the level of the aortic valve, extends to the point at which the left subclavian emerges, and involves chiefly the anterior wall of the vessel. The remains of three bronchial glands on the outer wall of the aneurysm show where it had become adherent to the surrounding tissues. The descending portion has been opened to display a number of grey, light-coloured patches of cartilaginous appearance, due to atheroma.

M.N. 1417. Dr. Simpson.

ARCH OF AORTA: Aneurysm. 14·1:27·1
HEART: Hypertrophy and Dilatation. 12:62·1

The aorta presents a large saccular aneurysm which extends from the junction of the ascending and transverse portions up to and including the origin of the carotid and left subclavian arteries. The walls consist of the expanded coats of the aorta. A smaller saccular aneurysm is present, just beyond the origin of the left subclavian. Both contain blood-clot. The right ventricle and right auricle are dilated, and the left ventricle shows slight hypertrophy.

M.N. 1418.

ARCH OF AORTA: Aneurysm. 14·1:27·1
CLAVICLE, RIB and STERNUM: Erosion. 94:41
94:22
95:41
96·1:41

The heart is of small size and shows a considerable amount of fatty tissue distributed all over the surface of the ventricles, leaving only the apical area uncovered. The arteries are tortuous. The aortic orifice is dilated; the aneurysm commences about $1\frac{1}{2}$ inches above the aortic valves, and extends to the point at which the left carotid and subclavian arteries emerge. The sac

extends upwards and forwards, and consists of numerous loculi. The wall is composed of thin, fibrous tissue, and its inner aspect is the site of small masses of thrombus. Externally on the left aspect it presents a thinned-out area in which there is a small opening. The wall is formed anteriorly by the manubrium sterni (in whose centre is a very large, round perforation), and by the sternal ends of the clavicle and the cartilages of the first rib on each side, and these structures also show distinct erosion. The interclavicular ligament remains, and appears thickened, and this structure divides the large perforation in the antero-superior wall of the aneurysm into two portions. An artificial opening has been made into the right wall of the sac to show the interior of the aneurysm.

M.N. 1420.

DESCENDING AORTA: Aneurysm. 14 · 1 : 27 · 1
ŒSOPHAGUS: Perforation. 33 : 22

The aneurysm arises just beyond the point of origin of the left subclavian artery. The edges of the opening into the sac are thick and nodular, and the opening itself is about the size of a shilling. The wall of the sac has been opened at its left lateral angle; and from this point downwards, for about an inch and a half, the aneurysm has pressed upon, eroded, and perforated, the œsophageal wall. The trachea is closely adherent to the posterior wall of the aneurysm, but it is apparently normal.

M.N. 1422.

DESCENDING AORTA: Aneurysm and Atheroma. 14 · 1 : 27 · 1
14 · 1 : 55 · 2

The aneurysm is situated in the descending portion of the aorta, commencing about 2 ins. beyond the point where the left subclavian artery is given off. The aneurysm is cylindrical in shape. The contents consist of laminated unorganised clot. The wall has been torn in several places, and is irregularly thickened, probably by adhesions to surrounding tissues. The remaining portion of the aorta shows numerous patches of atheroma.

M.N. 1424.

ARCH OF AORTA: Aneurysm. 14·1:27·1 (21·7)
PERICARDIUM: Perforation, Hæmopericardium. 11:22
11:33

The preparation shows the heart with the pericardium laid open; the thoracic aorta, and a portion of the trachea are also seen. There is a large aneurysmal dilatation extending from the orifice of the aorta to the innominate artery. It is laid open, and from its cavity a probe is passed into the pericardial cavity through a rupture which occurred during life. The surface of the heart is covered by a layer of recent blood-clot.

M.N. 1426.

ARCH OF AORTA: Aneurysm, Atheroma. 14·1:27·1
TRACHEA: Perforation. 14·1:55·2
23:22

The aorta shows very extensive atheromatous changes, giving the inner lining a very nodular appearance. The aneurysm occupies the transverse portion of the aorta on its superior aspect just below the origin of the innominate artery, and at this point it has ruptured into the trachea. The wall of the aneurysm shows numerous adhesions to adjacent structures, and the upper portion has been removed to show the contents, viz., unorganised blood-clot. The trachea exhibits a slight amount of catarrhal inflammation. Just before the commencement of the aneurysm, in the anterior wall of the aorta, there is a small sac which contains a considerable quantity of recently deposited blood.

M.N. 1429. D.B. 1460. P.M.M. 1891, No. 125. Mar. 18, 1892.
Dr. Dreschfeld.

AORTA: Multiple Aneurysm. 14·1:27·1

The heart is normal except for slight dilatation and hypertrophy of the left ventricle. The ascending aorta is somewhat dilated and slightly atheromatous. On the transverse aorta is an aneurysmal dilatation from which the innominate artery arises. Just beyond this is a larger aneurysm, extending backwards behind the origin of the left carotid and subclavian arteries; it is of the size of a hen's egg and contained blackish laminated clot. This sac extends

upwards behind the carotid and subclavian arteries, apparently compressing them. At the commencement of the descending aorta is another aneurysmal dilatation about the size of a small orange, containing laminated clot and extending to the front and sides of the vertebræ. Below this the aorta is very markedly atheromatous and presents several depressions apparently representing the commencement of aneurysms. About $1\frac{1}{2}$ inch above the diaphragm is another aneurysmal dilatation; the vertebræ were considerably eroded at this point. In the specimen the aorta is extended so as to show the series of aneurysms.

The patient was a male aged 64.

M.N. 1431. D.B. 1826. Dr. Reynolds.

THORACIC AORTA: Aneurysm. 14·1:27·1
VERTEBRAE: Erosion. 93:41
LUNG: Compression. 25:26

The specimen shows the heart and thoracic aorta with portions of the œsophagus, trachea, bronchi, and left lung, and also a number of dorsal vertebræ. The aneurysm forms an exceedingly large sac on the aorta in its descending thoracic part, and has led to compression of both the lung and the trachea. The œsophagus is stretched like a band over the outer surface of the structure. The heart is not hypertrophied. The inner wall of the sac is formed partly of the bodies of the vertebræ, and these are extensively eroded. The rest of the wall is much rougher by the deposit of fibrin in large flat flakes and granular masses.

M.N. 1432. D.B. 2455. P.M.M. 1886, No. 257. Dec. 24, 1888. Dr. Leech.

AORTA: Aneurysm and Atheroma. 14·1:27·1
14·1:55·2

The heart shows some hypertrophy and dilatation of the left ventricle. A large fusiform dilatation occupies the ascending aorta, and in the concavity of the arch is a globular swelling about the size of a small orange. It has compressed both bronchi, that on the left side being almost obliterated. The inner wall of the aorta is very rough from atheroma. Just beyond the origin of the left subclavian artery is an oval opening on the lower wall, an inch long, leading into a cavity filled with dark blood-clot.

The patient was a male aged 38.

M.N. 1433. D.B. 1881. P.M.M. 1893, No. 19. Dec. 10, 1892. Dr. Harris.

ARCH OF AORTA: Aneurysm. 14·1:27·1
BRONCHUS: Erosion. 24:55·3

A large aneurysmal sac lies on the under side of the arch of the aorta. It opens into the aorta by a large oval aperture 2 inches in diameter. The sac is full of coagulum, that lining the wall being laminated, variegated red and grey in colour, and of soft consistence. The sac measures 3 inches from before backwards, and 4 inches transversely. It extended behind the ascending aorta, which was pushed forwards. It also pressed on the œsophagus and left bronchus. Half an inch from its commencement the left bronchus shows a large patch of erosion with exposure of the free ends of the cartilages. The wall of the bronchus was at this point covered by clot, but there was no distinct channel connecting the lumen of the bronchus and the aneurysm. Very few patches of atheroma were found in the aorta. The orifices of the large branches of the aorta are normal. The heart was apparently normal.

The patient was a male aged 29.

M.N. 1434. D.B. 968. Dr. Harris.

ARCH OF AORTA: Atheroma, Saccular Aneurysm. 14·1:27·1
ŒSOPHAGUS: Obstruction and Ulceration. 14·1:55·2
33:26
33:55·3

The aneurysm arises at the level of the innominate artery and extends to the commencement of the descending portion. The cavity of the aneurysm is divided into several loculi, and contains recent clot. The wall consists of fibrous tissue. The remaining portions of the aorta exhibit atheromatous changes. The œsophagus is opened posteriorly and shows just above the level of the bifurcation of the trachea an oval swelling about 1 inch in length, which diminished the lumen and probably caused severe obstruction. The mucosa is missing from a small area.

M.N. 1437. D.B. 2427. P.M.M. 1893, No. 223. Mar. 5, 1894.
Dr. Graham Steell.

ASCENDING AORTA: Aneurysm and Atheroma, Rupture.	14·1:27·1 (21·7) 14:55·2
PERICARDIUM: Perforation.	11:22
HEART: Hypertrophy.	12:62·1

The heart is much enlarged from marked hypertrophy of the left ventricle, but there is very slight dilatation of its cavity. Otherwise the heart is normal. The whole of the aorta is the seat of atheroma; the arch is very much dilated as a whole, giving a circumference of $4\frac{1}{2}$ inches at a point 2 inches beyond the aortic valves. An inch beyond this point on the hinder aspect of the arch, and lying just below and to the left of the origin of the innominate artery, is an irregular laceration $2\frac{1}{3}$ inches long, having an almost vertical direction. The rupture has taken place into the sac of the pericardium at a point between the aorta and pulmonary artery below, and the superior vena cava above. There is a wide area of softened tissue in the aortic wall in the region of the laceration. The pericardium was filled with recent blood-clot.

The patient was a male aged 50.

M.N. 1444.

DESCENDING AORTA: Aneurysm.	14·1:27·1

The descending aorta is laid open to show the mouth of the aneurysm. The aneurysm is lined by a laminated fibrinous deposit, part of which is detached. The posterior wall is deficient and this is probably due to the attachment of the sac to the vertebral column.

M.N. 1453. Mr. Jordan.

ARCH OF AORTA: Aneurysm.	14·1:27·1

The aneurysmal dilatation commences at the junction of the ascending and transverse portion, and ends beyond its branches. The innominate artery is about 6 inches from the heart.

M.N. 1455.

DESCENDING AORTA: Aneurysm. 14 · 1 : 27 · 1
ŒSOPHAGUS: Perforation. 33 : 22

About 1 inch beyond the left subclavian artery lies the aneurysmal sac. It extends backwards, and is adherent to the œsophagus and trachea. The opening into the sac is about 1 inch in diameter, and its edges are smooth and cleanly cut. Rupture has occurred into the middle third of the œsophagus.

M.N. 1457. D.B. 2467.

ASCENDING AORTA: Aneurysm. 14 · 1 : 27 · 1
RIBS and CLAVICLE: Erosion. 96 · 1 : 41
95 : 41

The aneurysm commences about 2 inches above the aortic valve and extends upwards and to the right. The sac is composed of a number of saccules, and its anterior and lateral walls are apparently formed by the periosteum covering the internal surface of the ribs. The aneurysm projects through the inner fourth of the clavicle.

M.N. 1458.

AORTA: Aneurysm. 14 · 1 : 27 · 1
CLAVICLE and RIBS: Erosion. 96 · 1 : 41
95 : 41

The opening of the aneurysmal sac is above the right clavicle, and about its inner third. The sac has extended downwards, to the 5th rib and costal cartilage, and inwards, to the left sterno-clavicular articulation, passing down therefrom across the middle of the sternum and on to the ribs at the level of the 4th costal cartilage. In the opposite direction, it reaches just beyond the junction of the ribs and costal cartilages.

M.N. 1460.

AORTA: Aneurysm.	14·1:27·1
STERNUM and RIBS: Erosion.	94·41
	95:41

The aneurysm has eroded about $2\frac{1}{2}$ inches of the 3rd, 4th and 5th right ribs, and the inner right half of the lower $\frac{2}{3}$rds of the sternum. The sac extended underneath the muscles and subcutaneous tissues. The wall of the sac is perforated in several places.

M.N. 1462.

AORTA: Aneurysm.	14·1:27·1
VERTEBRAE: Erosion.	14·1:55·2
	93:41

The aneurysm is situated about 1 inch beyond the opening for the left subclavian artery. The opening of the sac presents a clean, well-defined edge, and the sac extends posteriorly: it is about the size of a tangerine orange. The wall becomes fused with the bodies of about 3 vertebræ; the latter showing a considerable amount of erosion. At one point the erosion has extended through the body of the vertebra opening up the vertebral canal. The left portion of the wall has been opened to show the interior of the sac. The aorta shows numerous patches of atheroma.

M.N. 1463.

DESCENDING AORTA: Aneurysm.	14·1:27·1
RIBS and VERTEBRAE: Erosion.	93:41
	95:41

The aneurysm commences at the junction of the transverse and descending aortæ. The aneurysmal sac extends backwards, and has eroded the bodies of the 3rd, 4th, 5th and 6th dorsal vertebræ, the erosion being most marked on the left side. The heads of the 3rd, 4th, 5th and 6th ribs are also partially destroyed.

M.N. 1464.

AORTA: Aneurysm. 14·1:27·1

The aneurysm commences at the junction of the ascending and transverse portions, 2 inches above the aortic valves. The distance from the commencement of the aneurysm to the innominate artery is 3 inches. The aneurysm extends upwards and backwards. The sac is 2 inches high, $4\frac{1}{2}$ inches long and $2\frac{1}{2}$ inches broad. The wall is irregular in thickness, presents several openings (post mortem), and is adherent to the trachea.

M.N. 1472. D.B. 697. P.M.M. 1886, No. 186. May 28, 1897. Dr. Morgan.

AORTA: Dissecting Aneurysm. 14·1:27·1

PLEURA: Perforation. 14·1:55·2
26:22

The inner lining of the aorta is very irregular from the presence of numerous prominent patches of atheroma; but there is no calcification. The aortic lumen is not dilated. Just beyond the origin of the left subclavian artery is a small slit-like aperture $\frac{1}{4}$ inch long, in the tunica intima, extending to the tunica media; below this the middle coat was ploughed up as far as the bifurcation of the abdominal aorta, and there was formed a large cavity in the wall of the aorta partly filled with decolourized blood-clot. This cavity presents a series of saccular extensions along its course, these diverticula being in communication with one another by narrower channels. Just below the arch of the aorta there was a small aperture whereby one of these saccules communicated with the cavity of the left pleura, which was full of recent blood-clot.

The patient was a male aged 62.

M.N. 1475.

ABDOMINAL AORTA: Atheroma, Dissecting Aneurysm. 14·1:27·1
14·1:55·2

The specimen consists of the whole of the abdominal aorta. Opposite the origin of the cœliac axis, there is an angular slit-like opening in the inner coat leading to the formation of a dissecting aneurysm extending along the whole of the posterior wall of this part of the aorta. The raised surface of the aneurysm shows wrinkling, and the tunica intima is the seat of marked atheroma. The upper end of the specimen shows a transverse section of the aneurysm which appears as a fusiform cavity filled with laminated reddish-brown clot, and the inner and outer coats of the aorta are well defined.

M.N. 2704. D.B. 3478. Nov., 1896. Dr. Brindley.

AORTA: Dissecting Aneurysm. 14·1:27·1
HEART: Hypertrophy and Dilatation. 12:62·1

The heart shows a moderately dilated and hypertrophied left ventricle. The mitral cusps are normal; the aortic cusps are slightly thickened, and there is some dilatation of the sinuses of Valsalva. About 1 inch above the commencement of the aorta, a transverse slit in the wall has occurred, leading to the cavity of a dissecting aneurysm, along the middle coat of the artery. The outer wall of the aneurysm is shown with a layer of adherent clot, well separated from the aorta which remains as an inner tube enclosed by the aneurysm.

M.N. 2803. D.B. 4012. P.M.M. 337. Oct. 27, 1902. Dr. Harris.

ASCENDING AORTA: Fusiform Aneurysmal Dilatation. 14·1:27·1

The aorta is markedly dilated and fusiform. The dilatation affects the ascending, and to a slight extent the transverse, part of the arch. The dilatation commences just above the level of the valves, and ends between the innominate artery and the left carotid, in which region the lumen of the vessel seems to be smaller than normal. The maximum circumference is $4\frac{1}{2}$ inches, and this is at a point $1\frac{1}{2}$ inches above the valves. The walls of the aorta show no thickening. They are flaccid. The interior shows numerous small patches of atheroma, but no signs of calcification. The aortic valves are healthy and the aperture normal. The heart is normal in size, the myocardium is healthy. There was marked dyspnœa on exertion, and later persistent inspiratory stridor. There was no mediastinal dulness. There was no murmur.

The patient, a female aged 42, died from acute pneumonia.

M.N. 2807. D.B. 4016. P.M.M. 344. Nov. 8, 1902. Dr. Harris.

DESCENDING AORTA: Aneurysm and Atheroma. 14·1:27·1
HEART: Hypertrophy and Dilatation. 14·1:55·2
12:62·1

The heart is much enlarged, and somewhat flabby. There is slight enlargement of the cavity of the right ventricle, and much enlargement of the left. The walls are hypertrophied. The aorta is extensively and diffusely

atheromatous. There is a very large saccular aneurysm situated in the lower two-thirds of the thoracic descending aorta, and also involving 2—3 inches of the upper abdominal aorta. A mesial vertical groove on the anterior surface received the œsophagus. It was very firmly adherent to the vertebræ. The bodies of the 9th, 10th, and 11th vertebræ were deeply eroded, but the spinal canal was not opened. The discs were eroded less than the bone. The interior of the aneurysm is filled with firm, red blood-clot, a channel being preserved through the middle, and this which is about the size of the index finger, was filled with recent blood-clot. The wall of the aorta is distinguishable over all but the posterior wall of the aneurysm. The heart was pressed forwards. The kidneys were slightly granular; the liver showed venous congestion; and there was pleural effusion.

The patient, a male aged 60, was much emaciated. There was a doubtful history of syphilis, but no doubt about the alcoholic habits.

M.N. 2817. D.B. 4051. P.M.M. 384. March 23, 1903. Dr. Harris.

AORTA: Aneurysm. 14·1:27·1
ŒSOPHAGUS and LEFT BRONCHUS: Ulceration. 24:55·3
33:55·3

The large aneurysmal sac involves the arch of the aorta. The anterior wall, which has been cut away, was adherent to the sternum and was thin. The posterior and under part of the sac was adherent firmly to the lower end of the trachea, left bronchus, and œsophagus. The aorta showed extensive atheroma, and a large, loosely adherent thrombus was seen projecting into the lumen of the aneurysm. At the level of the left bronchus, the œsophagus shows a large ulcer with round edges and a somewhat gangrenous appearance. Into the base of the ulcer the cartilaginous rings of the trachea project. The left bronchus was not constricted. The lungs were congested and œdematous.

The patient, a male aged 56, died of asphyxia from pressure. There was no paralysis of the vocal cords. There was a brassy cough and stridulous breathing.

M.N. 2849. D.B. 4118. P.M.M. 440. July 10, 1903.

AORTA: Saccular Aneurysm. 14 · 1 : 27 · 1
ŒSOPHAGUS: Perforation. 33 : 22

The specimen shows a saccular aneurysm on the postero-internal aspect of the commencement of the descending aorta. It is the size of a plover's egg. The walls are thin and irregular, and are continuous with the wall of the aorta. The sac had a comparatively large mouth. It was firmly adherent to the left bronchus and the adjacent portion of the œsophagus. There is an oval communication between the cavity of the aneurysm and the lumen of the œsophagus. Its largest diameter is vertical. The margins of the opening were slightly irregular and discoloured. The aorta shows a little atheroma, and that chiefly in the region of the aneurysm. The heart was normal.

The patient was a male aged 35 years, who died from hæmorrhage.

M.N. 2859. D.B. 4152. P.M.M. 480. Oct. 23, 1903. Dr. Reynolds.

AORTA: Aneurysm. 14 · 1 : 27 · 1
TRACHEA: Perforation. 14 · 1 : 55 · 2
23 : 22

The aorta shows extensive atheroma, and on the posterior wall of the 2nd part of the arch, a large oval sac, with maximum diameter of 4 inches, and wide mouth, is situated just below the origin of the large aortic branches. The wall of the sac is rough, and the contents are partly white, and partly post mortem, clot. The outer wall is firmly adherent to the lower part of the trachea and commencement of the left bronchus. The large branches of the aorta are not involved. On the inner aspect of the trachea near its bifurcation, and just about the opening of the left bronchus, there is a small aperture, clean cut in its edges. The adjacent portion of the mucous membrane was blood-stained. The heart showed both ventricles dilated, but especially the left, the walls of which were thinned.

The patient, a male aged 32, died from broncho-pneumonia.

M.N. 2873. D.B. 4178. P.M.M. 513. Dec. 16, 1903. Dr. Judson Bury.

AORTA: Saccular and Fusiform Aneurysm. 14·1:27·1
TRACHEA: Compression and Ulceration. 14·1:55·2
23:26
23:45

Very extensive atheromatous changes throughout the aorta had occurred. These were most marked in the ascending and transverse parts. The inner lining is very irregular, and numerous calcareous plates are present, but no ulceration. The orifice of the right coronary artery is slightly encroached on by the thickening of the aorta, and atheroma occurs in the course of the artery. Dilatation of the first part has taken place, especially of the right wall. The maximum circumference is $5\frac{1}{4}$ inches. The dilatation involves both the intra- and extra-pericardial portions. It ends abruptly without enlargement of the aortic orifice. The second part of the aorta shows general dilatation, but less than that of the ascending part. There is no appreciable separation of the orifices of the great vessels. On its posterior wall, at the left subclavian origin, is a marked saccular dilatation situated to the left of the trachea and the left bronchus. The outline is regular and smooth, and the vertical diameter is $3\frac{1}{2}$ inches. The aorta crosses the centre of the sac. It adheres to the trachea and left bronchus, but not to the œsophagus. The sac contains loosely adherent white clot. The surface exposed to the blood stream is almost flat. The rest of the cavity contains red post mortem clot. The sac has a large oval aperture 2 inches long. The margins of the mouth are smooth and regular. In the wall patches of atheroma can be seen. Just beyond the aperture the fusiform dilatation of the aorta ends somewhat abruptly. The aneurysm bulges into the trachea and left bronchus, and above the origin of the left bronchus there is a minute erosion of mucous membrane and exposure of cartilage. The air passages were filled with puriform non-frothy exudation. The left ventricle of the heart is dilated, and there is a moderate degree of hypertrophy.

The patient died from suppurative broncho-pneumonia of the left lung. This had arisen from the ulceration in the trachea. (See lung M.N. 2872—25(82):27·3.)

M.N. 2886. D.B. 4212. P.M.M. 579. May 3, 1904. Dr. Judson Bury.

AORTA: Spurious Aneurysm and Atheroma. 14·1:27·1 (21·7)
14·1:55·2

The aorta shows very extensive atheromatous change. On the left aspect just below the diaphragm is a large oval aperture, with fairly regular edges, leading into a very extensive cavity occupying a large area of the left retro-peritoneal tissue. The sac extended from the diaphragm down to just below the left Poupart's ligament, outside the femoral vessels. Its outline is pyriform, with the broad end upwards. It was well defined, and was easily separated from the surrounding tissues, except on its posterior aspect. The coats of the artery are not traceable beyond the mouth of the sac. The inner wall of the aneurysm is covered by blood-clot, which is for the most part of firm consistence. The postero-external quadrant of the left half of the diaphragm, which formed the upper limit, is thickened, firm, and inseparable from the sac, and on its pleural surface were found small irregular lacerations (the aneurysm had ruptured into the left pleural cavity, which was found full of recent blood-clot). The upper third of the aneurysm showed a distinct cavity filled with liquid blood, but the walls here are much thickened by a deposit of friable greyish-red clot. Clot similar to this occupied the lower two-thirds of the aneurysm, where no distinct cavity was visible. The anterior and left lateral aspects of the last dorsal and the first lumbar vertebræ, and the intervening cartilage, formed the posterior wall of the aneurysmal sac in this part. They were very much thinned by pressure, and their surfaces were smooth. In one or two places only a very thin layer of bony tissue is left separating the aneurysm from the spinal canal. The sac lay against the left aspect of the lower lumbar vertebræ, but was not adherent. The tapering end of the aneurysm lay along the brim of the pelvis just external to the left iliac vessels.

The patient was a male, æt. 44. He gave a history of severe lumbar pains for the last two months. The urine was normal except for a trace of albumen. After admission the pains became very severe and shot down from the lumbar region to the groin and left testicle. He had a sudden collapse and died from syncope.

M.N. 2887. D.B. 4213. P.M.M. 507. Dec. 9, 1903. Dr. Dreschfeld.

AORTA: Saccular Aneurysm.	14·1:27·1
TRACHEA: Compression.	23:26
ŒSOPHAGUS: Perforation.	33:22

The heart is enlarged, the apex is rounded, and there is a moderate amount of fat. There is slight dilatation of the left ventricle. The aorta and coronary arteries are markedly atheromatous. On the posterior aspect of the arch there is present an oval sac, of fairly regular outline, the size of a hen's egg. It separates the points of origin of the large arterial branches. The sac has a wide mouth, which admits five fingers. It is lined by white clots, thin and soft. The walls are flaccid and the internal surface is rough. The aneurysm was firmly adherent to the lower part of the trachea and to the œsophagus immediately behind. The wall of the trachea showed signs of commencing necrosis. In the œsophagus a perforation, round and regular, was found, large enough to admit the tip of the index finger (glass rod in situ). The orifice was filled with red clot. The adjacent mucous membrane was soft. The other organs were normal.

The patient, a male aged 39, vomited blood before and after admission. Death was due to collapse.

M.N. 2940. D.B. 4231. P.M.M. 636. Sept. 27, 1904. Dr. Dreschfeld.

AORTA: Aneurysm and Atheroma.	14·1:27·1
STERNUM: Perforation.	14·1:55·2
SKIN: Necrosis.	94:22
	81 (04·1):44

On the transverse portion of the aorta is a very large oval aneurysmal dilatation of the size of a cocoanut. It commences abruptly $2\frac{1}{2}$ inches above the aortic valves, and ends abruptly $\frac{3}{4}$ inch beyond the origin of the left subclavian artery. The anterior wall is the portion most affected, but the posterior wall is slightly enlarged. The anterior surface is adherent to the sternum opposite the 1st and 2nd ribs, and encroaches slightly on the cartilages adjacent. It has eroded the manubrium sterni, leading to the formation of a hole in this bone somewhat larger than a shilling. The portion of the sac in front of the sternum has very thin walls, and very slight pressure served to express thin blood-stained turbid fluid from several points. There is practically no indura-

tion of the tissues around this part. Inside the thorax the aneurysm bulged into both pleuræ, but these are not otherwise involved. The sac feels very firm, and inside the thorax has thick walls. On section they are found to show an overgrowth of fibrous tissue, and are well supported, except over the under surface, by a moderately thick layer of grey thrombus and a thin layer of red clot. Otherwise the cavity is empty. The aneurysm shows no signs of adhesion to the air passages, lung, œsophagus or vertebræ. The under aspect of the arch of the aorta does not appear to be distended. The heart is not enlarged; it is very flabby; the myocardium is pale, greyish-brown, and very friable. The walls of the left ventricle appear somewhat thinned, and its cavity very slightly dilated. Otherwise it is normal. The aorta shows well-marked atheroma with numerous large patches.

M.N. 2951. D.B. 4273B. P.M.M. 667. Dec. 21, 1904.

DESCENDING AORTA: Atheroma and Aneurysm. 14·1:27·1
14·1:55·2

The aorta shows very well-marked atheroma throughout: the patches are large and firm, but there is no sign of ulceration. At the lowest part of the thoracic aorta, 2 inches above the diaphragm, is a small saccular aneurysm, the size of a plover's egg. It is oval, and bulges into the left pleural cavity, and is slightly adherent to the left lung. The wall of the aneurysm shows a very large laceration by which it opens into the pleural sac. The mouth of the aneurysm is oval, $1\frac{1}{2}$ inches in diameter. The artery walls are easily traced along the wall of the sac, but rapidly become thinned. The sac contained a little post mortem clot. (See lung M.N. 2953—25:33 and heart M.N. 3297—12:62·1).

M.N. 3346. D.B. 4342. Mar. 4, 1905. Dr. HARRIS.

AORTA: Aneurysm. 14·1:27·1
LUNG: Perforation and Tuberculosis. 14·1:55·2
25:22
25:56·1

The specimen consists of the whole of the left lung of an adult, the transverse and descending portions of the thoracic aorta, and the lowest portion of the trachea. The aorta is the seat of very extensive atheroma, which is most marked in the transverse portion. Some of the patches show evidence of

calcification. At one point in the descending portion, adjacent to the trachea, is a large and very firm patch, and adhering to its inner surface is a small portion of the coagulum. On the left aspect of the descending aorta, near its commencement, is a large oval aperture, having its longest diameter of 2 inches along the lumen of the aorta. The upper limit of this opening lies an inch beyond the origin of the left subclavian artery. The wall of the aorta surrounding the aperture is much thickened by atheromatous change. The opening leads directly into a large, roughly oval cavity in the substance of the upper lobe of the left lung. This cavity lies in the hinder quarter of this lobe, and has extended to the surface on the posterior external aspect of the lung. At this point the lung tissue had been completely destroyed, and the boundary of the cavity was formed of somewhat thickened and adherent pleura. The inner lining of the cavity is roughened, feels firm, and has the appearance of red blood-clot. The walls of the cavity feel very thick, but are ill-defined and difficult to distinguish from adjacent lung tissue. The apex of the upper lobe shows a fairly well circumscribed area of thickened opaque pleura, and here the two layers had obviously been very firmly adherent. Section of the apex of the lung show a few old tuberculous scars. The rest of the lung is normal.

M.N. 3367. D.B. 3487. Dec. 1896. Dr. Reynolds.

HEART and AORTA: Aneurysm of the Ascending Aorta, and Rupture into the left Auricle and Pulmonary Artery. 14·1 : 27·1 (21·7) 12 : 22 14·2 : 22

The heart is of normal size, shape, and general appearance. The aortic cusps are slightly thickened. The commencement of the aorta is the seat of a fusiform aneurysm which has ruptured into the left auricle (by means of a large aperture) and into the posterior aspect of the main trunk of the pulmonary artery. The specimen was obtained from a girl aged 17, who died suddenly. Except for the ruptured aneurysm, there were no other post-mortem signs of disease.

M.N. 3381. D.B. 4630. P.M.M. 723. June 28, 1905. Dr. HARRIS.

ARCH OF AORTA: Aneurysm and Atheroma. 14·1:27·1
TRACHEA: Compression and Congestion. 14·1:55·2
HEART: Dilatation. 23·26
23:32
12:27

The aorta is the seat of well-marked atheroma, but the patches are least marked in that part of the vessel which lies just above the valves, and many of the patches, though very large, are only moderately prominent. No signs of ulceration or calcification appear, but there is evidence of much structural change in the wall of the descending aorta which gives the inner lining a grey semitranslucent appearance. Commencing $1\frac{1}{2}$ inches above the aortic valves, and ending $\frac{1}{4}$ inch beyond the left subclavian artery, is the large, regularly oval mouth, of an aneurysmal sac, situated on the posterior and superior aspect of the transverse aorta. The mouth is well defined along its lower border, where it presents a distinct lip-like ridge. The aneurysm is regularly oval, of the size of a cocoanut. The walls throughout are only slightly thicker than the wall of a normal aorta. Internally it is somewhat irregular, though smooth, and there is no sign of occluding thrombus. The cavity was filled with post mortem clot continuous with that in the lumen of the aorta. The sac was united with the lower 2 inches of the anterior wall of the trachea, and at this part the total thickness of the wall, composed of the artery and the trachea, is very slightly more than that of the normal tracheal wall. It looks as if the trachea were separated from the cavity of the aneurysm by a layer of modified tunica intima alone, and through this layer the cartilaginous rings can be readily felt. On opening the trachea there is seen a distinct flattening of the lumen by bulging inwards of the lower part of the anterior wall. Here the mucous membrane is distinctly congested, and the lumen was filled with pinkish yellow, puriform, frothy fluid; but no signs of erosion or ulceration, necrosis, or discoloration, in connection with the presence of the aneurysmal sac could be detected. Apparently the aneurysm has not pressed on either lateral wall of the trachea. The bronchi show no sign of compression. The three large aortic branches arise from the aneurysmal sac just inside the mouth of the aneurysm; but there does not appear to be any undue separation of their points of origin. There were no adhesions between the aneurysm and vertebræ, œsophagus or larynx. The heart is somewhat enlarged, rounded and flabby. It showed nothing abnormal apart from some dilatation of both ventricles. Microscopic

section shows marked cellular exudation round the smaller branches of the coronary arteries.

The patient was a male, aged 45, and death was due to hypostatic pneumonia, suppurative broncho-pneumonia and acute sero-fibrinous pleurisy (in each case bilateral). In the last 4 months of life there had been attacks of dyspnœa, which were often prolonged, sometimes associated with unconsciousness even lasting 3 to 4 hours, coming on suddenly, and just as quickly passing off. The only reliable sign of aneurysm present in this case was tracheal tugging. There was no mediastinal dulness; no heart murmur, nor an accentuated second sound; larynx, pupils, and pulses were normal.

M.N. 3419. D.B. 2619. P.M.M. 1894, No. 49. June 27, 1894.

Dr. Graham Steell.

AORTA: Aneurysm and Atheroma.	14·1:27·1
RIBS: Erosion.	14·1:55·2
	95:41

The specimen consists of the heart and aorta. On the aorta is an enormous aneurysm springing from the anterior portion of the arch, just beyond the origin of the innominate artery. The aneurysm had bulged through the thoracic wall, having eroded the ribs on the left side. It contained nearly 2 lbs. of dark soft blood-clot, and its anterior wall shows layers of laminated clot. The aorta is markedly atheromatous. The heart shows no hypertrophy.

The patient was a male aged 40.

M.N. 3421. D.B. 4595. P.M.M. 719. June 10, 1905.

ASCENDING AORTA: Aneurysm and Atheroma.	14·1:27·1
HEART: Hypertrophy and Dilatation.	14·1:55·2
	12:62·1

The heart is somewhat enlarged, and of a rounded contour. It was flabby and the myocardium was pale, brownish-grey, and friable. The cavities and their walls are normal, except that there is some dilatation and slight hypertrophy of the left ventricle. The aortic valves were slightly incompetent. The aorta is the seat of extensive atheroma with well-marked calcification in the form of plates. A small saccular aneurysm lies on the anterior wall, between the aorta and the pulmonary artery, to the left side. It has a vertical diameter

of $2\frac{1}{2}$ inches and its cavity is at most $\frac{3}{4}$ inch deep. The mouth is roughly circular, and communicates with the lumen of the aorta just above the left coronary artery, which lies partly in the wall of the aneurysm, and has its orifice much distorted and diminished in consequence. The aneurysmal cavity was partly filled with friable, greyish-red clot. The mouth is fully an inch in diameter. The orifices of both coronaries are much diminished, and along their course they show marked atheroma. The entire specimen weighed 15 ozs.

The patient, a male, aged 35, was brought in dead to the M.R.I.

M.N. 3429. D.B. 3990. May 24, 1902.

ARCH OF AORTA: Aneurysm. 14 · 1 : 27 · 1
TRACHEA: Catarrh. 23 : 52
BRONCHUS: Compression. 24 : 26

The heart is of normal shape, and not much increased in size. The aortic dilatation is somewhat fusiform in appearance, and extends throughout nearly the whole of the transverse portion of the arch. From it arises the innominate and left carotid and subclavian arteries. The descending aorta contains a thrombus, which partially occludes its lumen. A section has been made through the anterior portion of the aneurysm, and the contents of the cavity are seen to consist of laminated clot. There is a recent thrombus in the centre of the cavity. The walls of the aneurysm are fibrous and pass somewhat abruptly into the normal structure of the descending aorta. The aneurysm presses upon the left bronchus, and appears to diminish its lumen. The trachea and bronchi show catarrhal inflammation. The bronchial glands are pigmented, and some of them have been included in the outer layers of the aneurysmal wall. At one part the wall of the aneurysm is imperfect.

M.N. 3566. D.B. 4648. P.M.M. 734. July 19, 1905. Dr. Dreschfeld.

AORTA: Atheroma, Aneurysm, and Thrombosis. 14 · 1 : 27 · 1
14 · 1 : 55 · 2
14 · 1 : 27 · 2

The aorta is the seat of enormous atheromatous change, and it is almost impossible to find in the thoracic portion an area of normal intima. Calcification in plates and granules is abundantly distributed, and there is widespread small shallow ulceration, which is in many cases the seat of dull, greyish-red

thrombus. The circumference of the thoracic aorta varies throughout its extent, from 4 to 5 inches. This dilatation is fairly uniform till it ends somewhat abruptly just below the diaphragm. The ascending aorta is one of its widest parts, and there is also just above the diaphragm another further fusiform dilatation. Here there is a large amount of greyish-red antemortem thrombus as a broad annular zone measuring about $2\frac{1}{2}$ inches. At the junction of the ascending and transverse portions, and on the convexity of the upper surface, is a large, regularly oval aneurysmal sac, the size of a cocoanut, lying to the right and in front of the trachea. It was slightly adherent to the right border of the manubrium sterni, and the first rib and its cartilage. The rib was eroded, and a small osteophytic spicule projected into the cavity of the aneurysm. The wall of the sac is formed by the arterial coat much modified but easily traceable throughout. The cavity is almost completely filled by very firm, dirty, greyish purple, laminated thrombus. There was also a small mass of post mortem clot continuous with that in the lumen of the aorta. The mouth of the sac is large and of a regularly oval contour. The left carotid and left subclavian arteries are close together, but the former is widely separated from the innominate artery. The trachea and bronchi appear somewhat wider than normal. The mucosa is much injected, and there is widespread blackening of the parts associated with the aneurysmal sac; but no signs of ulceration can be found. The heart shows some slight degree of hypertrophy of the left ventricle, but no dilatation. The aortic valves are thickened and fibrous, and deformed. The coronary arteries are the seat of moderately extensive atheroma.

The patient was a male aged 61. He had suffered from cough and palpitation for 18 months. He was in the M.R.I. for two and a half months prior to his death, and among the symptoms found were tracheal tugging, pulsation in the aortic area, accentuated second sound, unequal pulses, aphonia, and inequality of the pupils. There was no abnormal dulness in front. For some days before death he coughed up blood-stained mucus, and death was due to suppurative broncho-pneumonia. The kidneys were normal.

M.N. 3602. D.B. 3700. P.M.M. 1897, No. 82. Apr. 23, 1898. Dr. Dreschfeld.

AORTA: Dissecting Aneurysm and Atheroma. 14·1:27·1
14·1:55·2

The aorta shows well-marked atheroma, especially in the region of the arch. A small calcareous patch is found an inch beyond the origin of the left subclavian artery, and four inches beyond this point, that is $1\frac{1}{4}$ inches below the level of the left bronchus, is a transverse slit, $\frac{5}{8}$ inch. in length and a little more than $\frac{1}{8}$ inch across. This leads into a sac, some $3\frac{1}{2}$ inches in length, containing laminated clot. The aneurysm has made its way downwards in the wall of the aorta as far as the bifurcation of the abdominal aorta. At a point $2\frac{1}{4}$ inches below the above-mentioned transverse slit, the dissecting aneurysm has a diameter of $1\frac{1}{4}$ inch. There were communications by a dozen apertures between the dissecting aneurysm and the lumen of the aorta. Several of these are no bigger than a pin point; but one, near the lower limit, is $1\frac{1}{2}$ inch in width. The aneurysm terminates on the right side by opening into the right common iliac artery, an inch beyond its origin.

The patient was a female aged 50, who died from gradual cardiac failure. The heart was much hypertrophied and dilated. The myocardium was degenerated. There was a history of sudden pain in the chest following a strain that occurred 12 months ago.

ARTERIES, EXCEPT THE AORTA: ANEURYSM.

M.N. 560.

POPLITEAL ARTERY: Aneurysm. 14·7 (08·3) : 27·1

The aneurysm commences as high as the middle of the lateral border of the external condyle of the knee joint. Fusiform in type it extends almost to the border of the internal surface of the head of the tibia, near the insertion of the gracilis, sartorius and semitendinosus. The contents consist of partly organised laminated thrombus.

M.N. 988. D.B. 1248. P.M.M. 1889, No. 344. May 25, 1891. Dr. Harris.

ARTERIES OF THE CIRCLE OF WILLIS: Aneurysm and Atheroma. 14·3 : 27·1 (21·7) 14·3 : 55·2

The walls of the vessels show irregular thickenings. On the middle cerebral arteries, at the points where they divide into smaller branches, there are small aneurysms. One of these has ruptured.

M.N. 989. D.B. 1217. P.M.M. 1889, No. 304. March 18, 1891. Dr. Ross.

CEREBRAL ARTERIES: Atheroma, Aneurysm. 14·3 : 27·1 (21·7) 14·3 : 55·2

There was rupture of the anterior communicating artery. The corpus striatum, optic thalamus, internal capsule, and lower part of corona radiata on the left side were completely destroyed by extensive hæmorrhage. The limbs on the left side, and the face on the right side, were paralysed. These arteries show small patches of atheroma, and there is an aneurysm on the left anterior communicating artery which has ruptured. There was no atheroma of the aorta.

The patient was a woman aged 60.

M.N. 990.

BASILAR ARTERY: Fusiform Aneurysm and Atheroma. 14·3:27·1

The basilar artery shows a fusiform aneurysm which commences opposite the medulla and extends forward to about the middle of the pons. The cerebellum, pons, and medulla are present, and indicate the relations of the artery. The vessel shows a good deal of atheromatous thickening of its walls.

M.N. 1080.

BASILAR ARTERY: Aneurysm. 14·3:27·1

Immediately above the upper border of the pons Varolii an aneurysm may be seen, situated on the basilar artery. It is about the size of a large pea, and the cavity is filled with red blood-clot.

M.N. 1125. D.B. 338.

CAROTID ARTERY: Aneurysm. 14·8:27·1
TRACHEA: Ulceration. 23:55·3

The specimen shows the base of the tongue, the larynx, the trachea, and its bifurcation, part of the arch of the aorta, and the right carotid artery. At the lower part of the right carotid artery, there is situated an aneurysm of about the dimensions of a hen's egg, regularly oval in shape. The enlargement has taken place towards the trachea, and has caused a distinct bulging of the right wall into the lumen. This bulging has led to a partial stenosis of the trachea over the most prominent part of the swelling; and ulceration has taken place at two distinct points. Surrounding, but especially above, the area of ulceration, there is distinct swelling of the lymphoid tissue. The portion of the aorta which is visible shows well-marked atheroma. The aneurysm has a saccular form. The edge of the opening is smooth and rounded. There is no coagulum in the cavity.

M.N. 1399. D.B. 969.

INNOMINATE ARTERY: Aneurysm. 14·5:27·1
TRACHEA: Compression. 23:26

The aorta is dilated, and its wall the seat of chronic inflammation. At the junction of the innominate with the aorta there is a saccular aneurysm extending forwards and to the right, about an inch and a half in depth. It is opened to display a laminated unorganised blood-clot. The trachea shows catarrhal inflammation; its lumen is diminished by the bulging of a rounded aneurysmal swelling on the posterior aspect of the dilated arch of the aorta.

M.N. 1438. D.B. 571. Nov. 17, 1887. Mr. Wright.

SCALP: Cirsoid Aneurysm. 14·8:27·2
82:62

The cutaneous tissues are raised, and are somewhat smoother than normal. The subcutaneous tissues are very much thickened, and showing extensive fibrosis, and contain a large number of dilated arteries, in one of which there is a blood-clot.

The patient was a woman aged 29.

M.N. 1439. D.B. 891. P.M.S. 1887, No. 101. Mar. 30, 1889. Mr. Wright.

SUBCLAVIAN ARTERY: Aneurysm. 14·5:27·1
CLAVICLE: Erosion. 96·1:41

The specimen shows a portion of the wall of a large aneurysm situated on the anterior aspect of the right subclavian artery (3rd part). It was of the size of an orange. Its hinder wall is composed of the dilated atheromatous artery, and on the anterior wall there was a laminated clot forming a large mass in which lay the clavicle, whose surface showed widespread erosion. The aneurysm had ruptured and the extravasated blood had infiltrated the tissues in the wall of the chest. The continuity of the sac with the subclavian and axillary arteries can be traced.

The patient was a male aged 55.

M.N. 1440. D.B. 2457. Mr. A. W. Stocks.

SUBCLAVIAN ARTERY: Aneurysm. 14·8:27·1 (21·7)

About $1\frac{1}{2}$ inches from the origin of the right subclavian artery, there is an aneurysm, about 2 inches in length. The contents consist of unorganized clot. There are two small ruptures in the wall.

M.N. 1446. D.B. 971. June, 1886. Prof. Young.

FEMORAL ARTERY: Aneurysm. 14·7:27·1

At the inferior end of the femoral artery is a large aneurysm, fusiform in appearance. It has been opened to show the contents of laminated clot. The walls have been apparently adherent to adjacent tissues. To the upper end of the specimen, a portion of skin is attached, and the artery has been opened at this point. The course of the femoral vein can also be followed throughout the specimen; in the lower part of its course it is closely adherent to the wall of the aneurysm.

M.N. 1447. Mr. Hardie.

FEMORAL ARTERY: Aneurysm. 14·7:27·1

The aneurysm is situated in the lower part of the femoral artery. It is of large size, and is covered by a portion of skin. The contents consist of laminated clot. The vessel is ligatured just above the aneurysm.

M.N. 1448. D.B. 2144. Oct. 4, 1893. Mr. Thorburn.

FEMORAL ARTERY: Aneurysm. 14·7:27·1

The specimen shows the lowest portion of the femoral artery which was removed from the stump in a case of amputation through the lower third of the thigh, 32 years before, by Professor Syme. The artery is seen to be the seat of a saccular aneurysm, with well defined walls, containing a large amount of somewhat laminated thrombus.

The patient was a male aged 50.

M.N. 1449. D.B. 2479. Mr. G. Southam.

FEMORAL ARTERY: Aneurysm. 14·7:27·1

The aneurysm, which is of fusiform appearance, consists chiefly of a dilatation of one half of the wall of the vessel. It is about $1\frac{1}{2}$ inches long, and 1 inch broad. At the upper part of the vessel two branches pass off just above the aneurysmal dilatation: the latter terminating at the point of divergence of two inferior branches.

M.N. 1451.

POPLITEAL ARTERY: Aneurysm. 14·7:27·1

The popliteal artery is laid open, to show a saccular aneurysm of globular character, and of small size. In the interior of the aneurysmal cavity there is a laminated fibrinous deposit. The walls of the artery show atheromatous patches.

M.N. 1456. D.B. 2462.

INNOMINATE ARTERY: Dilatation and Aneurysm. 14 5:27·1
HEART: Dilatation and Hypertrophy. 12:62·1

The heart is enlarged in size, both ventricles being equally affected. The right auricle shows marked dilatation. The innominate artery is dilated, and on its posterior aspect, there is a small aneurysm, the size of a cherry.

M.N. 2990. Mr. Whitehead.

DORSALIS PEDIS ARTERY: Aneurysm. 14·7:27:1

The specimen is a small sacculated aneurysm of the dorsalis pedis artery. A fine wire has been passed through the artery. The aneurysm springs from its posterior wall and in the recent state contained a small amount of dark clot. A small amount of yellow decolorized clot can be seen adherent to the upper part of its lining. The patient was an engine driver aged 43 years. The tumour followed a twist of the foot ten months previous to operation, and had gradually increased in size since the accident. The aneurysm was removed by excision, March 20th, 1902.

M.N. 3027. Mr. J. W. Smith.

POPLITEAL ARTERY: Aneurysm. 14·7:27·1
14·7:34·1 (42·9)

The specimen is from an amputated leg. The aneurysm springs from the posterior wall of the artery. There is no true sac. The wall consists partly of fibrous tissue, and partly of muscular fibres, and has been artificially made by dissection from the surrounding matted-together soft parts. The cavity contained soft dark clot only. The nerves are seen adherent to the walls. The vein is distended. One inch below the level of the aneurysm (*above* the aneurysm in the specimen, which has been inverted to show the phlebolith more clearly) its lumen is completely obstructed by a calcified thrombus. The artery and vein above the aneurysm are both thrombosed.

The patient was a male aged 45 years. The aneurysm had been noticed 3 months. The femoral artery was ligatured at the apex of Scarpa's triangle, April 9th, 1904. Dry gangrene followed and amputation through the lower third of the thigh was performed April 15, 1904.

M.N. 3548. Mr. J. W. Smith.

POPLITEAL ARTERY: Aneurysm. 14·7:27·1

The specimen consists of a dissection of the knee, made to expose a large aneurysm of the popliteal artery, the size of a cocoanut, which is situated behind the upper end of the tibia, and projects from the posterior wall of the artery, in the ends of which red glass rods have been inserted. The outer surface of the aneurysmal sac is grooved, as the result of the compression by tendons. The ends of the vein are indicated by blue glass rods.

The patient was a man aged 65 years. The aneurysm had been present for 40 years, but was no bigger than a walnut until 6 weeks before operation, when it began to enlarge very rapidly. The thigh was amputated Aug. 14, 1905.

M.N. 3632. D.B. 3477. Mr. Platt.

RADIAL ARTERY: Traumatic Aneurysm. 14·7:27·1

The specimen consists of two small saccular aneurysms, which have formed on the radial artery as the result of injury to that blood-vessel.

ARTERIES: THROMBOSIS AND EMBOLISM.

M.N. 1483.

CAROTID ARTERY: Thrombosis. 14·8:34
14·8:91

The carotid artery and jugular vein are seen from behind; the artery is constricted by ligature opposite the cricoid cartilage, above and below, whilst it is laid open by a vertical incision extending upwards to the bifurcation, and downwards to the arch of the aorta. The ligature is embedded in new-formed fibrous tissue: the lumen of the vessel is occupied by blood-clot; the proximal side of the clot extending almost as far as the aorta; the distal part, less extensive, tapering off. The clot is firm, and completely obliterates the vessel, and it appears to be recent and but slightly adherent to the wall of the vessel. Viewed from the front, the part shows the carotid artery exposed on a level with the cricoid cartilage where it is surrounded by a ligature of thick silk, one end of which has been left. The ligature lies in a smooth-walled fairly deep cavity, and possibly suppuration may have taken place during life.

M.N. 1490. D.B. 2478.

ARTERY: Thrombosis. 14·7:34·1

The vessel has been opened to show a somewhat recent simple thrombus which extends throughout the greater part of the vessels, and passes into most of the branches.

M.N. 1491. Dr. Dreschfeld.

ARTERY: Thrombosis. 14:34·2

The specimen is from a case of pyæmia. The vessel has been cut in half to show a dark-coloured clot, which exhibits laminated and lighter areas, and presents no evidence of organisation. The outer wall of the vessel contains several deeply pigmented areas, resulting probably from hæmorrhagic extravasations.

M.N. 2749. D.B. 3001.

COMMON ILIAC ARTERY: Thrombosis. 14·6:34·1

A simple thrombus which presents no evidence of organization occupies the centre length of the vessel.

M.N. 2969. D.B. 4161. P.M.M. 493. Nov. 10, 1903. Dr. Dreschfeld.

LUNG: Embolism of the Pulmonary Artery. 14·2:35·1
25:36·1

The lung was of normal size and shape, and showed moderate pigmentation. There was no pleurisy. It was crepitant, but there were a few small areas of infarction, some of which are seen in the cut surface. The rest of the lung was congested. In the pulmonary artery there is a somewhat red, firm, friable embolus, occluding the lumen.

The patient was a male, aged 63. He was admitted with Cheyne-Stokes' breathing, but lived 5 weeks thereafter. He suffered from ulcerative colitis. There was a cardiac thrombus in the left ventricle. (See heart M.N. 2865—12:34·1 and kidney M.N. 2866—51:62 and cæcum M.N. 2867—35·4:55·3.)

M.N. 3036.

FEMORAL ARTERY: Thrombosis. 14·7:34·1
15·6:34·1

The specimen shows a segment of the femoral artery and vein, and their branches. Both the main trunks and their branches are filled with a dark coloured thrombus. The cut ends of the blood vessels show that there has been a considerable amount of arterio-sclerosis.

From a dissecting-room subject. There was no history.

M.N. 3082. Mr. Montgomery.

AORTA: Thrombosis from Gonorrhœa. 14·1:34·2

The specimen consists of the abdominal aorta and iliac arteries close to the bifurcation. The vessels are filled with dark clot.

M.N. 3198. D.B. 4435. May 15, 1903. Mr. Collier.

MESENTERIC ARTERY: Thrombosis. 14·6:34
35·2:44·5

This specimen consists in a preparation of a portion of the small intestine with its mesentery to show thrombosis of the mesenteric artery. A layer of peritoneum has been removed and an incision of the wall of some of the main branches has been made to expose the thrombus in situ. The intestine is in a state of gangrene.

The patient was a man who suffered from very severe symptoms of acute intestinal obstruction. Operation was performed, and the bowel resected, but the patient died from shock.

M.N. 3460. D.B. 4697. Oct. 9, 1905. Dr. Ashby.

CEREBRAL ARTERIES (BASE): Embolism. 14·3:35·2

At the point where the ascending external frontal artery arises from the right middle cerebral artery, there is a large embolus which has dilated the vessel. The embolus is of a grey, mottled, opaque appearance, and at either end of it there is a dark area, due to red thrombus. A smaller embolus of a similar nature is visible in the right anterior cerebral artery. The left communicating artery is also occluded, but this is probably of post-mortem origin, since it has the uniform dark colour of recent blood-clot. The specimen consists of the arteries of the base of the brain. It was taken from a case of ulcerative endocarditis in a child, aged 12 years. A sudden onset of stertorous breathing, coma, and twitching of the left side of the body, was followed by death within 6 hours. The mitral valve was the seat of chronic and recent endocarditis, and showed a number of large, fleshy vegetations. Similar vegetations were present on the wall of the left auricle, on the under surface of the mitral valve, and on the chordæ tendineæ. The spleen was enlarged, of a dark red colour, its follicles were swollen, and it contained several recent infarcts. (See spleen M.N. 3461—45:36.)

M.N. 3507. D.B. 4654. P.M.M. 735. July 22, 1905. Dr. Dreschfeld.

LUNG (RIGHT): Embolism of the Pulmonary Artery. 14·2:35
25:36

The weight of the lung is 34 ozs. It is of normal shape, and its surface is smooth and very pale. There is little pigmentation. It pitted markedly on pressure. Posteriorly it felt firmer, and here and there seemed nodular to the touch. On section it cut easily and the surface was very moist and grey, and exuded a large amount of frothy, colourless, serous fluid. There are numerous small areas of consolidation in the upper lobe—some of a slaty grey colour, and some deep purple, resembling infarcts. Apart from these areas the tissue of the upper lobe is anæmic, compared with that of the lower lobe. Large masses of grey embolism were found in the large branches of the pulmonary artery. A similar condition, though not so well marked, was found in the left lung, which weighed 23 ozs. (See heart M.N. 3524—13·3:55·6.)

M.N. 3531. D.B. 4689. September 29, 1905. Mr. Southam.

LEG: Thrombosis of the Popliteal Artery. 14·7:34·1

The specimen shows a dissection of the popliteal artery, the seat of a thrombus which has been formed for 3 days. The patient was somewhat anæmic, and had been undergoing energetic anti-syphilitic treatment when the thrombus formed. The thrombus extends down to the division of the popliteal artery.

M.N. 3684. D.B. 4736. P.M.M. 772. Nov. 15, 1905. Dr. Graham Steell.

PULMONARY ARTERY: Thrombosis. 14·2:34·1

HEART: Chronic Mitral Endocarditis, Stenosis, Hypertrophy and Dilatation. 13·1:55·5
12:62·1
25:36·1
25:27·3

The lungs show in the apices numerous bullæ from emphysema, and over the pleural surface are the remains of fibrous adhesions. The lungs feel heavy, and in the left lobe a large area is occupied by an infarction. There is no other consolidation. The pulmonary arteries of this area are filled with thrombus.

The pulmonary artery to the right lung shows well-marked atheroma. A similar condition, but less marked, is seen in the other pulmonary vessels. The heart is enlarged and globular in outline. All the cavities are dilated, but the right much more than the left. The mitral cusps are thick, rigid, and opaque, and the orifice admits only the tip of the little finger.

The patient, a man aged 26, gave a history of chorea at 9 years of age. Palpitation became troublesome 2 years ago. On admission he had orthopnœa, but no cyanosis. Subsequently he had præcordial pain and hæmoptysis. At the autopsy there were found general passive congestion and the lesions described above.

ARTERIES: ATHEROMA.

M.N. 987. D.B. 895. Oct. 15, 1889. Dr. Robinson.

BASILAR ARTERY AND CIRCLE OF WILLIS:
Atheroma. 14·3:55·2

The vessels show numerous patches of atheroma, and present generally a somewhat thickened opaque appearance. The atheroma is almost continuous.

M.N. 1342. D.B. 944. P.M.M. 1889, No. 90. Nov. 20, 1889. Dr. Dreschfeld.

AORTA: Ulceration, Aortitis. 14·1:55·3
HEART: Hypertrophy. 12:62

The left ventricle is enormously hypertrophied, the muscular wall being uniformly 1 inch in thickness. The cavity of the ventricle is exceedingly small. The heart and its valves were normal, except for a small patch of atheroma which had formed on the anterior flap of the mitral valve. Above the aortic opening this wall of the aorta has a very rough, ulcerated appearance, and is much thickened. The result of the thickening has been to cause obstruction to the blood flow. The change in the vessel wall persisted as far as the mouths of the great branches, and the roughened surface showed irregular vegetations. The left subclavian and carotid were almost obliterated. There was a second constriction at the distal end of the arch. The kidney was studded with infarcts of various sizes. None were present in the spleen. There were cerebral hæmorrhage and apoplectic cysts.

The patient was a girl aged 15.

M.N. 1352. D.B. 945. P.M.M. 1889, No. 97. Nov. 25, 1889. Dr. Reynolds.

HEART: Atheroma of the Coronary Arteries, Hypertrophy. 14·4:55·2 12:62

The left ventricle of the heart is very markedly hypertrophied without dilatation, and there is a moderate degree of atheroma of the coronary arteries, but there is no sign of myocarditis.

The patient had interstitial nephritis, and the kidneys at the post mortem were intensely congested. There was early cirrhosis of the liver, and there was marked opacity of the pia-arachnoid membranes. There were numerous cicatrices on the legs and an indurated patch close to the frænum of the penis. The patient was found dead in a cab.

M.N. 1465. Mr. Hardie.

AORTA: Atheroma. 14·1:55·2
AORTIC VALVES: Stenosis. 13·2:55·5

The preparation shows the aortic orifice and valve, the first part of the arch of the aorta, and the origin of the coronary arteries. The valves are thickened, the margins rounded, and partly adherent. The orifice is constricted. There are calcareous nodules irregularly distributed in the body of the valves, and a fringe of prominent irregular calcareous nodules surrounds the aorta itself immediately above the valves.

M.N. 1466.

AORTA: Atheroma. 14·1:55·2
AORTIC VALVE: Endocarditis. 13·2:55·1
CORONARY ARTERY: Obstruction. 14·4:25

Just above the valves are numerous patches of atheroma. The endothelium has disappeared in many places and a slight deposit of calcium salts has taken place. The orifice of one coronary artery is almost occluded. One aortic cusp shows fibrous thickening.

M.N. 1474.

AORTA: Atheroma. 14·1:55·2

The aorta is opened from below, exactly opposite the outlets of the large vessels. Almost the entire endothelial surface presents atheromatous changes, and these are also present for a short distance within the innominate, carotid, and subclavian arteries. Large plates of calcium salts, and smaller calcareous masses, are widely distributed over the whole internal surface.

M.N. 1476. D.B. 195.

AORTA: Atheroma, Thrombosis. 14·1:55·2
14·1:34·1

The inner surface of the vessel is entirely covered by thrombi and huge calcareous plates and nodules. The vessel, when looked through, shows light and dark patches. The light patches correspond to the calcareous plates; the dark ones to the thrombi.

M.N. 1477. D.B. 2380.

AORTA: Atheroma. 14·1:55·2

The atheromatous patches are scattered irregularly; some consist of small, round, slightly raised areas, of a pearly white colour. There are two larger patches in the middle line of the anterior wall of the artery.

M.N. 1479.

CAROTID ARTERY: Atheroma, Calcification. 14·8:55·2

The artery is dilated in its lower fourth, and shows small dilatations where the branches pass off. There are numerous patches of dense, opaque substance, scattered irregularly throughout the length of the artery, which are most marked where the branches pass off, and in the lower segments.

M.N. 1484. D.B. 247. March 5, 1886. Dr. Dreschfeld.

AORTA: Atheroma, Thrombus. 14·1:55·2
14·1:34·1

The specimen shows on the wall of the aorta two very large, and numerous small, areas of atheroma. A thrombus is present adhering to the wall and extending the whole length of the vessel, almost obliterating the lumen at the lower part.

M.N. 2830. D.B. 4086. P.M.M. 414. May 23, 1903. Dr. Dreschfeld.

AORTA: Atheroma. 14·1:55·2

The specimen shows atheroma, in an advanced stage of the disease, extending through the thoracic and abdominal segments of the aorta. In the upper part, pale yellow raised patches occur, especially in the line of the opening of the arterial branches. In the lower part it spread round almost the whole of the lumen. In the lower part, when it is more advanced, irregular ulcers occur, the edges of which are undermined, and free from the deposit of calcareous salts. There is no aneurysmal dilatation. The heart was much enlarged (20 ozs.) Dyspnœa and pseudo-anginal attacks occurred. There was œdema of the limbs and lungs. There was also general passive congestion. The kidneys were granular.

The patient, a male aged 68, was a painter by trade. He died of heart failure.

M.N. 2838. D.B. 4094. P.M.M. 420. May 28, 1903. Dr. Graham Steell.

AORTA: Atheroma. 14·1:55·2

The disease is at a moderately advanced stage, in which degeneration, fatty and calcareous, has set in. The affected areas are small and separated from each other. There is no ulceration or dilatation. The kidneys were granular, weighing $3\frac{1}{2}$ ozs. each. There was cardiac hypertrophy and dilatation. The heart weighed 31 ozs. The coronary arteries were atheromatous. The liver and spleen showed venous congestion.

The patient, a male aged 49, was a painter by trade. He had œdema of the lower limbs $3\frac{1}{2}$ weeks before death. The cause of death was heart failure. (See kidney M.N. 2839—51:52·2 and heart M.N. 2873—12:62·1.)

M.N. 2861. D.B. 4155. P.M.M. 484. Oct. 27, 1903.

SPLENIC ARTERY: Atheroma. 14·6:55·2

The splenic artery is elongated, markedly tortuous, and dilated. The walls are very firm and rigid, and there was well-marked local thickening in places, leading to diminution of the lumen, and loss of circular outline. The patches are yellowish white, well defined, firm, and of variable thickness. There was extensive atheroma of the descending aorta. Both coronary arteries were atheromatous. The left was completely occluded by calcareous deposit. The cerebral arteries were very atheromatous. The heart weighed only 15 ozs.

The patient died suddenly in a train. There was no myocarditis.

M.N. 2967. D.B. 4215. P.M.M. 573. April 20,1904. Dr. Graham Steell.

HEART: Sclerosis of the Ascending Aorta, and Sclerosis of the neighbouring Aortic Cusp. 14·1:55·1 13·2:55·1 12:62·1

The heart is much enlarged and weighed 18½ ozs. The contour is rounded, and the myocardium is normal. There was dilatation of the right cavities. The left ventricle shows dilatation without thickening of the walls. The valves are normal except the aortic, and here the left posterior cusp is much thickened, and irregularly nodular, and its right extremity is detached. The free edge is smooth, but the line of attachment is finely granular. The adjacent right posterior cusp shows thickening. The anterior cusp is normal. In the aorta immediately above the injured cusp there is an area of thickening in the form of a plateau with regular bevelled edges, which run parallel up the ascending aorta to the commencement of the transverse part. It is 1¼ inches wide, and it has a smooth surface of normal colour. There was a well defined small patch of atheroma on the aortic wall above the anterior cusp. There were no other changes. The orifice of the left coronary artery was more or less obliterated by the thickening in the aortic wall. In the endocardium of the left auricle, over the area corresponding to the thickened patch of the aorta, there was a thickening and opacity. The microscopical examination showed an overgrowth of dense, moderately cellular, fibrous tissue. There are no elastic fibres in the thickened layer. The endothelium is continuous over the patch except at one or two minute spots where thrombi were found.

M.N. 3354. D.B. 4563. P.M.M. 716. May 22, 1905. Dr. Harris.

AORTA: Atheroma and Dilatation. 14·1:55·2
CORONARY ARTERY: Atheroma. 14·4:55·2
14·1:27·1

The entire specimen weighed 17 ozs. The heart is normal apart from slight dilatation of the left ventricle. The aorta is the seat of very extensive atheroma in which the fatty changes are very well marked. The patches are large and irregular, but are not markedly prominent, and the intervening tunica intima shows a whitish grey glistening, and slightly puckered appearance. Here and there are small granules of calcification and shallow ulcers. Just beyond the orifice of the left subclavian artery is a small area of fusiform bulging of the wall of the aorta. It is most marked on the convexity, but it is ill defined, the calcified circumference being only about half as much again as the normal. No thrombus was present. The coronary orifices are markedly occluded by the atheroma of the aorta, and they showed extensive atheromatous changes along their course.

The patient was a male aged 33, who died suddenly from angina pectoris.

M.N. 3440. D.B. 3161. P.M.M. 1895, No. 27. June, 1895.

AORTA: Atheroma. 14·1:55·2

The specimen shows the upper part of the aorta in a condition of very advanced atheroma. The internal surface of the aorta is covered by a series of calcareous plates, the edges of which are in many instances projecting from the surface. They are surrounded by tissue which has in some areas a yellow, fatty appearance, and in others has undergone ulceration. The heart was normal in size, and the coronary arteries were extremely atheromatous. The kidneys were small, their united weight being $6\frac{1}{2}$ ozs., but there was no marked evidence of fibrosis. The patient, a man aged 82, had been found unconscious in the street, and before death only partially recovered consciousness. The brain was œdematous and the ventricles contained a large quantity of pale fluid. The lungs were very congested and œdematous.

M.N. 3551. D.B. 4646. P.M.M. 733. July 15, 1905.

CORONARY ARTERIES: Thrombosis and Atheroma. 14·4:55·2
14·4:34·1

The weight of the heart was $10\frac{1}{2}$ ozs., and the organ to external appearance is normal. The cavities are not dilated. The valves and their orifices are normal. Some small, though well-marked, patches of atheroma are diffusely scattered throughout the aorta. The lumen of the left coronary artery, half an inch from its commencement, is completely occluded by a mass of friable grey thrombus, which extended for a length of $\frac{3}{4}$ inch, and at the distal end could be traced down one of the minute branches of the artery. A few well-marked patches of atheroma were found along the course of the coronary arteries.

The patient was a male aged 20, who was brought in dead to the M.R.I. (See kidney M.N. 3555—51:12 and spleen M.N. 3603—45:12.)

VARICES.

M.N. 1493. March 3, 1883. Mr. Whitehead.

SAPHENOUS VEIN: Varix. 15·6:27·1

The vein has been opened longitudinally, and its inner surface shows marked irregularity due to unequal thickening of the coats. At one point where a large branch enters there has been a distinct saccular bulging. The varix was removed by operation.

M.N. 1494. Dec., 1887.

VEINS: Varix. 15·6:27

The veins pursue a very tortuous course, form numerous folds, and run transversely, and as they turn inwards and outwards the dilatation is most marked, in some instances forming slight pouches.

M.N. 1495. D.B. 2170. Oct. 14, 1893. Dr. Brown.

VEINS: Varix and Ulceration of the Skin. 15·6:27·1
81:55·3

The specimen shows a varix, covered by a small piece of skin. The latter at one place shows erosion, and ulceration of its surface, resulting apparently from pressure. The veins are dilated, tortuous, and run transversely. They present large pouches at the ends of each transverse portion.

M.N. 1496. Mr. Turner.

SPERMATIC VEINS: Varicocele. 15·6:27·1

The veins are injected (red) and show much tortuosity and dilatation. The arterial vessels are injected with a metallic substance (mercury).

M.N. 1932. D.B. 168.

RECTUM : Hæmorrhoids. 15 (35 · 5) : 27
35 · 5 : 32 · 2

This specimen shows round the margin of the anal opening a ring-like series of irregularly rounded processes, varying considerably in size, each covered by a thickened mucous membrane. The skin in the neighbourhood is somewhat loose and wrinkled. Each of these processes corresponds to a varicose vein in the wall of the rectum.

M.N. 1933.

RECTUM and ANUS : Hæmorrhoids. 15 (35 · 5) : 27 · 2
35 · 5 : 55 · 3

The specimen shows the rectum and anus. The wall of the rectum in its mucous membrane is very irregularly thickened, and also in the muscular coat in its lower segment. From the anus up for about 6 inches, the mucous membrane is very much discoloured, and has been considerably broken up in the preparation. Round the anal opening there is a bunch of hæmorrhoids, each one covered partly by skin and partly by mucous membrane. The skin is somewhat smooth and atrophied in appearance, but the deeper layers are considerably thickened. This formation has thrown the wall of the opening into irregular folds. The specimen has been injected, and at the back of it may be seen openings into the large number of veins and dilated spaces in which the injected material is situated. On the skin surface there is a small, deep ulcer.

M.N. 2871. D.B. 4173. P.M.M. 504. Dec. 4, 1903. Dr. Graham Steell.

ŒSOPHAGUS : Varix. 15 (33) : 27

At the lowest part of the œsophagus, and extending up for 4 inches from the cardiac orifice, there was a large number of dilated engorged tortuous veins. They contain purple blood-clot. The walls of the veins are not thickened. The mucous membrane was normal except over a small patch of hæmorrhagic infiltration. The stomach was normal, but distended by recent blood-clot.

The patient had well-marked mutilobular hepatic cirrhosis. There were no gummata, and alcoholic history was denied. The spleen was very large, weighing 22 ozs. There was a little atheroma in the aorta. The patient died of hæmorrhage. He had vomiting and hæmatemesis for a week.

M.N. 3044.

INTERNAL SAPHENOUS VEIN: Varix and Thrombus. 15·6:27
15·6:34·1

The specimen shows a localised dilatation of a varicose saphenous vein. The cavity is occupied by a thrombus, colloid in appearance, and darkly pigmented. The wall of the dilated vessel is exceedingly thin, and membranous in character.

M.N. 3069. Mr. Wright.

INTERNAL SAPHENOUS VEIN: Varix and Thrombus. 15·6:27·1
15·6:34·1

The specimen shows two neighbouring dilatations from a tortuous saphenous vein. The cavity of each is filled with a dark brown thrombus.

The patient was a woman aged 34 years. There was a 2 years' history of varicose veins and thrombosis. The vein was excised Feb. 27th, 1903.

M.N. 3076. Mr. Collier.

INTERNAL SAPHENOUS VEIN: Varix, Thrombus. 15·6:27·1
15·6:34·1
15·6:55·1

The specimen shows a portion of the internal saphenous vein which contains a large thrombus. The vein is tortuous and displays a large fusiform dilatation at one of the angles. The wall of the pouch is thinned by distension. A window has been cut and the presence of red thrombus is seen. The lower end of the lumen is also occluded. The upper end shows a small lumen and the walls thickened by chronic endophlebitis.

The patient was a woman aged 53 years. The thrombosis had occurred suddenly a year before operation. The vein was excised July 16, 1902.

M.N. 3146. Sept. 3, 1902. Mr. Platt.

INTERNAL SAPHENOUS VEIN: Varix, Thrombus. 15·6:27
15·6:34·1

A part of the internal saphenous vein which is much elongated, dilated, and tortuous, shows a wall that is much thickened and a lumen filled with a thrombus.

The patient was a man aged 50, who had had varicose veins for three years. Thrombosis had been present two weeks. The vein was thrombosed from the knee to the saphenous opening.

M.N. 3163. Mr. Wright.

SAPHENOUS VEIN: Varix, Thrombosis. 15·6:27
15·6:34·1

The specimen shows a portion of the saphenous vein, the middle part of which is the site of a large, rounded dilatation, whose cavity is occupied by a firm red thrombus. A portion of the wall has been turned down, and shows the smooth inner lining.

The patient was a single woman aged 32. She had suffered from varicose veins for 5 or 6 years. One year previous to the operation the internal saphenous vein became inflamed and thrombosis followed. She could not account for it. The vein was markedly tortuous and dilated, and was thrombosed from the middle of the leg to the middle of the thigh. On January 30, 1905, the vein was removed through three incisions. Recovery was uneventful.

M.N. 3382. D.B. 4594. P.M.M. 718. June 10, 1905. Dr. Harris.

PORTION OF SKIN AND SUBCUTANEOUS TISSUE FROM THE EPIGASTRIUM: Thrombosis of Localised Varix. 15·6 (05·1):27·1
15·6 (05·1):34·1

The specimen shows a portion of the affected area. The epithelial layer of the skin is somewhat thickened, and immediately underneath this, are seen the gross sections of the tortuous veins distended and filled with red thrombus.

The patient, a female aged 39, suffered from mediastinal sarcoma.

M.N. 3570. D.B. 4699. P.M.M. 757. Oct. 10, 1905. Dr. Wilkinson.

ŒSOPHAGUS and STOMACH: Varix, Thrombus, Ulceration. 15·6 (33) : 27·1
15·6 (33) : 34·1
33 : 45

The veins in the lower half of the œsophagus are much dilated, and are the seat of widespread, red thrombus. Just above the cardiac orifice is a large, black, irregular area of ulceration. The thrombosed veins can be traced over a large fan-shaped area on the stomach wall, in the region of the cardiac orifice. The edges of the ulcer have the appearance of being infiltrated with blood. The ulcer is divided into two parts by a hard, vertical edge of thrombosed vein, over which the mucous membrane is more or less intact. No blood was found in the stomach at the autopsy. (See liver M.N. 3569—36 : 53.)

M.N. 3572. D.B. 4571. May 26, 1905. Mr. Southam.

SAPHENOUS VEIN: Varix. 15·6 : 27·1

The specimen consists of a portion of the saphenous vein from the wall of which there is projecting a cyst-like pouch about $1\frac{1}{2}$ inches in diameter.

M.N. 3679.

SAPHENOUS VEIN: Varix and Thrombosis. 15·6 : 27
15·6 : 34·1

This flat, elongated structure, represents a saphenous vein which has become dilated, elongated, and tortuous; thrombosis has taken place.

VEINS: THROMBUS.

M.N. 1485.

COMMON ILIAC VEIN: Thrombus. 15·6:34

The vein has been opened up to show a thrombus, slightly organised, which extends into all the large branches.

M.N. 1486. Mr. Turner.

EXTERNAL ILIAC VEIN: Thrombus. 15·6:34·1

The vein has been opened up to show a thrombus, almost entirely unorganised, which extends throughout the whole length of the vessel, and into the branches. It is lamellated in arrangement.

M.N. 1487. Dr. Dreschfeld.

FEMORAL ARTERY and VEIN: Thrombus. 15·6:34

The vein has been opened to show a thrombus originating from one of the valves. The thrombus has extended into two adjacent branches. In shape it is roughly conical.

M.N. 1488. Mr. Southam.

FEMORAL VEIN: Thrombus. 15·6:34·1

The vein has been opened and shows a simple thrombus, which, in the lower part, is organised at the periphery, and is closely adherent to the wall of the vessel. Proximal to this is a portion in a less organised condition, and the centre of the vessel is occupied by a recent thrombus.

M.N. 1492. D.B. 248. March 4, 1886. Dr. Lloyd Roberts.

INFERIOR VENA CAVA, COMMON ILIAC and INTERNAL ILIAC VEINS: Septic Thrombus in a Case of Puerperal Fever. 15·6:34·2

The inferior vena cava has been opened, and shows large clots which are adherent to the walls of the vessel, and are present in the branches. Similar conditions occur in the common iliacs. The endothelium is smooth.

M.N. 2825. D.B. 4075. P.M.M. 408. May 16, 1903. Dr. Dreschfeld.

DURA MATER, SUPERIOR and INFERIOR LONGITUDINAL SINUSES: Thrombus from a Case of Chlorosis. 15·3:34·1

The patient was a female aged 15 who died from coma. There was softening of the basal ganglia with punctiform hæmorrhages on both sides, except over an outer strip of the optic thalami.

Patient showed no unusual symptoms till May 10th, when she began to suffer from headache and vomiting. She became unconscious on May 13th. The temperature was normal till near the time of death on May 14th, when it rose to 109°F. (See ovary M.N. 2965—65:67·5.)

M.N. 2885. D.B. 4211. P.M.M. 550. Feb. 26, 1904. Dr. Dreschfeld.

PORTAL VEIN: Thrombus. 15·5:34·1

The thrombosed vein is shown as it was situated in the gastro-hepatic omentum, and the thrombus is seen situated in the lumen. It has a whitish appearance, and has become organised. Round the occluded vein there is a mass of spongy tissue consisting of dilated blood spaces. The thrombus extended to the branches of the portal vein, and the patient died from infarction of the bowel, leading to intestinal hæmorrhage. The infarction was in the jejunum, and occupied 4 feet of the bowel. The wall was thick and infiltrated with blood, the mesentery was thick and sodden, and showed thrombosed vessels in large numbers. An ulcer was present near the pyloric end of the stomach and another in the duodenum.

Microscopical examination:—A section showed that the thrombus occupying the lumen of the portal vein was completely organised, and here and there were a few small channels lined by endothelium. The muscular coat of the vein was intact. Round the vein was a mass of fibrous tissue containing vascular spaces, lined by endothelium. Organised thrombus was also found in the splenic vein. The spongy tissue continued into the liver. There was otherwise a slight excess of fibrous tissue round the portal vessels. The liver was slightly enlarged and the surface was smooth and pale on section. The spleen was enlarged but paler than normal. The kidneys were anæmic and the heart was normal. There was œdema of the lungs.

Clinical notes. Twelve months history of gastric troubles, abdominal pain, vomiting, and later (within 3 weeks of death) hæmatemesis. The patient was a male aged 39. He died from infarction of the bowel.

M.N. 3749. D.B. 4886. July 25, 1904. Dr. Orr.

CEREBRAL VEINS: Thrombus. 15·3:34·1
72:54·1

Running almost vertically from near the Sylvian fissure across the posterior portion of the frontal lobe are seen two of the cerebral veins filled with thrombus along their entire extent to their junction with the superior longitudinal sinus. There is no sign of thrombosis in the latter vessel. Accompanying the veins is a streak of subpial inflammatory exudation.

RESPIRATORY SYSTEM.

NARES: FOREIGN BODIES.

M.N. 2460. Sept. 14, 1878.

NARES: Foreign Body. 21 : 28

Button removed from the nostril after retention for 16 days.

NARES: BENIGN TUMOURS.

M.N. 1134. D.B. 556. Oct., 1887. Dr. Harris.

NOSE: Papilloma. 21 : 64 · 6

The specimen shows the left nasal cavity, with the middle septum cut away. The mucous membrane covering the inferior turbinated bone is somewhat thickened, and along the posterior two-thirds of the free margin of the bone, it has formed a warty growth. This growth increases in size towards the posterior extremity of the bone, where it assumes a rounded, pendulous form, and hangs down till it touches the floor of the nasal cavity.

M.N. 1135.

NOSE: Polypus. 21 : 63 · 5

The specimen shows the left nasal cavity laid open. Projecting down from the region of the superior turbinated bone, and extending back for $1\frac{1}{2}$ inches, is a soft-looking nasal polypus with a rather flattened form, and broadest at its free end. It hangs free in the cavity. There is not much sign of œdema, but the outer surface is somewhat shrivelled. The mucous membrane over the inferior turbinated bone is thickened, but is otherwise normal. In addition, there is situated on the roof of the nasal cavity, a rounded, bean-shaped mass, which is slightly lobulated, but has not developed a pedicle.

M.I. 1136.

NOSE: Polypus. 21 : 63 · 5

The jar contains a group of nasal polypi of various shapes. Some of them are composed of fairly solid tissue, and these show a certain degree of flattening. The smaller ones are more rounded, and one in particular seems to be little more than a cyst containing serous fluid.

M.N. 1137.

NOSE: Polypus. 21 : 63 · 5

The jar contains 3 nasal polypi. One (the largest) has been attached by a thin flat pedicle. From this attachment the tissue spreads out in a web-like fashion, broadening at the same time, and at the free margin has a thickness of $\frac{1}{3}$ in. at the lower end. The surface presents a slight degree of lobular marking. Below this are two smaller polypi; one attached by a broad flat pedicle, the other by a thin rounded pedicle. The free part of the tumour in each case presents somewhat the same features as those already described in the account of the larger polypus.

M.N. 1138.

NOSE: Polypus. 21 : 63 · 5

The tumour possesses a stem of a rounded, fleshy character, somewhat resembling the stalk of a fungus. This stem is about 2 inches long, and becomes slightly thicker and more rounded as it passes to a transversely flattened, bulbous extremity, which shows a certain tendency to divide up into lobules.

M.N. 3065. Mr. Thorburn.

NASO-PHARYNX: Polypus. 21 · 2 : 63 · 2
21 : 63 · 2

The tumour has a somewhat uneven, pitted surface, parts of which look as if they had been worn smooth by friction. A section of the larger mass shows that the structure, while œdematous near the surface, is of comparatively dense, fibrous character. The tumour is attached by a broad band of tissue, which acts as a pedicle. Near the point of attachment there are other subsidiary processes. The polypus hung down in the pharynx, pushing the soft palate forwards.

The patient was a male aged 58. Operation Dec. 13, 1901.

NARES: MALIGNANT TUMOURS.

M.N. 3498. D.B. 4573. May 26, 1905. Mr. Platt.

NASAL FOSSA: Squamous Epithelioma. 21 : 66 . 1

The specimen consists in an irregular mass of tissue somewhat polypoid in structure, the free surface being covered with mucous membrane.

Microscopically the tumour shows a growth of prickle cells either in the form of a solid, cylindrical process, or as a layer of considerable depth spreading beneath a layer of ciliated cells which is clearly shown in the surface.

The patient was a woman aged 56 years, who had suffered from some obstruction of the right nostril for 3 years, but for 6 months the growth had rapidly enlarged. Obstruction became complete, and there was considerable discharge and radiating pains. Growth was removed May 12, 1905.

LARYNX: BURNS, FOREIGN BODIES, CHEMICAL LESIONS.

M.N. 1085. D.B. 678A. March, 1888.

LARYNX: Œdema Glottidis due to Oxalic Acid. 22 : 29 · 1
22 : 37
33 : 55 · 4

The oxalic acid was obtained from a carpet-cleaning mixture.

The specimen shows the larynx and trachea unopened, and the œsophagus opened posteriorly. The mucous membrane of the epiglottis, the aryteno-epiglottidean folds and the œsophagus shows a large number of patches of superficial necrosis. These are arranged irregularly, and they are more distinctly defined towards the lower end of the œsophagus. Under these patches the mucous membrane is very much swollen. At the laryngeal opening this swelling has given rise to very marked œdema glottidis, and continuing from the junction of the two lateral masses of œdematous tissue posteriorly, there can be traced down the anterior wall of the œsophagus a distinct column of well-marked œdematous swelling. The rest of the wall of the œsophagus shows the same change but to a less degree.

M.N. 1086.

LARYNX: Œdema from Nitrate of Silver Poisoning. 22 : 29 · 1
22 : 37
42 : 55 · 1

The circumvallate papillæ at the root of the tongue are very prominent. The mucous membrane covering the epiglottis anteriorly is markedly swollen and thrown into ridges. The epiglottis is very thick, and the junction of the glosso-arytenoid folds of mucous membrane is so exceedingly swollen that corresponding to each arytenoid cartilage there is an oval mass the size of a walnut. The entire mucous membrane of the pharynx is strikingly swollen, and the lymphoid follicles stand out prominently.

M.N. 1088. D.B. 2019. P.M.M. 1892, No. 66. May 8, 1893.

LARYNX: Burns. 22 : 29

This specimen shows charring of the lining membrane of the larynx, caused by an accident with a paraffin lamp, which led to extensive burns on the face and the thorax. Both lungs were intensely congested.

M.N. 1089. D.B. 1141. April 5, 1890.

LARYNX: Inflammation from Scalding. 23 : 29
23 : 54 · 2
23 : 91

Immediately below the cricoid cartilages is seen a thick, irregular, rough layer, composed of fibrinous membrane, covering the inner wall of the trachea and bronchi. In some places it is partially detached, and the broken fragments have fallen down and almost completely occluded the lumen. Towards the upper limit of this membrane there is the opening of the wound of tracheotomy.

The patient was a child, aged 3 years, who suffered from exudative inflammation of the trachea and bronchi, arising from scalding.

M.N. 1128. D.B. 1013. Feb. 18, 1890.

LARYNX: Foreign Body. 22 : 28

A short distance below the level of the vocal cords is seen a fish bone, lying across the lumen. On the anterior wall, at the level of the cricoid cartilage, is a tracheotomy wound. The laryngeal mucous membrane shows nothing abnormal.

The patient was a child.

M.N. 1129.

LARYNX: Foreign Body. 22 : 28

The specimen shows a larynx in which there is slight œdema. The foreign body was a bit of the skin detached from the finger suspended above the specimen. This portion of skin is seen adhering to the left side of the laryngeal wall below the level of the vocal end.

The history is that the bit of skin was almost completely detached in the slamming of a door in a public house. This was apparently then bitten completely off by the patient and found its way into his larynx. The patient was found cyanotic and moribund in the street and died soon after removal to the Infirmary.

M.N. 1130.

LARYNX: Foreign Body. 22 : 28

A grain of maize is impacted in the larynx. It has passed below the rima glottidis and is lodged above the commencement of the trachea.

M.N. 1133.

LARYNX: Foreign Body. 22 : 28

The specimen shows a puffing dart which was removed from the larynx of a young man. Tracheotomy was performed, and the patient recovered.

M.N. 2879. D.B. 4194. P.M.M. 347. Feb. 13, 1904.

LARYNX: Foreign Body. 22 : 28

The obstruction of the larynx is due to a morsel of tripe. The mass of tripe completely occludes the glottis and extends down as far as the cricoid cartilage. The pharynx also is full of tripe. Tripe and alcohol were found in the stomach.

The patient, a male aged 52, was brought in dead to the Hospital.

LARYNX: CIRCULATORY DISTURBANCES.

M.N. 2855. D.B. 4128. P.M.M. 451. July 31, 1903. Dr. Graham Steell.

LARYNX: Œdema Glottidis. 22 : 37

There is seen a pale, puffy swelling, occupying the aryteno-epiglottidean folds, and almost completely occluding the orifice of the larynx. The swelling is most marked posteriorly.

The patient, a male aged 38, suffered from congenital cystic kidney, and died from uræmia. (See kidney M.N. 2854—51 : 67·3.)

LARYNX: RETROGRESSIVE DISORDERS.

M.N. 1083. Mr. Turner.

LARYNX: Ossification of Cartilages. 22 (85) : 42 · 9

The specimen shows the hyoid bone and the thyroid, arytenoid, and cricoid cartilages undergoing ossification. Note the irregularity in the process of ossification. It may begin at any point in the cartilages. It is roughly symmetrical on the two sides: but no definite order of occurrence is followed.

M.N. 1084. Mr. Turner.

LARYNX: Ossification. 22 (85) : 42 · 9

The jar contains a series of 4 specimens illustrating ossification of the thyroid cartilage. The uppermost of the series shows very partial ossification of the cartilage, and the dried cartilage remains between the areas of bone formation. It is to be noted that the process of ossification shows no definite order in its occurrence. It occurs either in the upper or lower parts of the cartilage.

LARYNX: INFLAMMATIONS.

M.N. 1100. D.B. 584. Nov., 1887. Dr. Graham Steell.

LARYNX: Abscess. 22 : 54 · 5
22 : 55 · 3

On the left side of the larynx posteriorly, and at the level of the vocal cords, there is seen a large pyramidal-shaped cavity, at the edges of which the mucous membrane is distinctly swollen. From the walls of this cavity there projects a large number of shaggy strands of tissue, and some of these hang over the lower edge of the opening, projecting downwards into the cavity of the larynx for half an inch or more. The inner end of this cavity is situated at a considerable depth in the soft tissues at the upper margin of the cricoid cartilage. Directly in the middle line posteriorly a second smaller cavity has formed, similar to the one described. The mucous membrane over the right side of the larynx is very much swollen, and towards the posterior aspect has commenced to slough.

M.N. 1102.

LARYNX: Ulcerative Inflammation. 22 : 55 · 3
85 : 44

The specimen shows the larynx and upper part of the trachea of a child, laid open from behind. Large defects of mucous membrane are seen both above and below the vocal cords, and at these parts the cartilages are exposed and eroded. Here and there they are seen to be excavated continuously with the destruction of mucous membrane. The excavation in some instances extends almost to perforation. A tracheotomy incision is seen on the anterior wall of the trachea.

LARYNX: TUBERCULOSIS.

M.N. 1103.

LARYNX: Tuberculous Ulceration. 22 : 56 · 1
22 : 55 · 3
85 : 44

The specimen shows the tongue, the soft palate and uvula, the larynx, and the upper part of the trachea. The epiglottis is considerably thickened and displays on its posterior surface early ulceration in an irregular form. The mucous membrane over the false vocal cords is very markedly thickened, and shows, especially towards the posterior aspect, well marked ulceration. On the right side an ulcer is seen surrounded by ragged and irregularly swollen mucous membrane, with its base at a considerable depth in the soft tissues. An ulcer has occurred over the right arytenoid cartilage, and at its base the cartilage is seen stripped of its perichondrium. Over the true vocal cords, and extending down to the base of the cricoid cartilage, the membrane is thickened, and exhibits here and there ulceration over areas of varying size.

M.N. 1104.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 3

The epiglottis is somewhat thickened and rounded, but is not ulcerated. The mucous membrane of the larynx generally is very much thickened, especially that of the true and false vocal cords, and particularly of the left vocal cords, where the membrane is also roughened and ulcerated. The most marked ulceration is at the posterior end of the left cords, and there is also a large amount of inflammatory swelling around the edge of the ulcer. The ulcer here has burrowed for a considerable depth into the wall of the larynx. Below the true cords the mucous membrane is thickened, roughened, and shows a number of small ulcers.

M.N. 1106. Mr. Turner.

LARYNX: Tuberculous Ulceration. 22 : 56 · 1
22 : 55 · 3

The mucous membrane on the posterior surface of the epiglottis is thickened, and presents a granular surface which, however, is not ulcerated. The mucous membrane over the vocal cords, true and false, is much swollen, and from the level of the true cords downwards to the trachea, is the seat of an irregular, ragged ulceration. At the posterior extremity of the right vocal cords the ulceration has excavated deeply into the tissues, and here is seen an irregularly quadrangular opening, the mouth of the cavity thus formed.

M.N. 1107.

LARYNX, TRACHEA and BRONCHI: Tuberculous Ulceration. 22 : 56 · 1
23 : 56 · 1
24 : 56 · 1

In the larynx very extensive ulceration has taken place, affecting the base of the epiglottis posteriorly and the true and false vocal cords, especially at their anterior extremities. The mucous membrane in its whole circumference over the rest of the larynx is the seat of irregular ulceration. The mucous membrane of the trachea shows numerous small ulcers, which are situated chiefly in that part of the membrane which lies between the rings of cartilage. Here horizontal rows of small punched out ulcers occur in a thickened necrotic-looking mucous membrane. The thyroid body, especially the middle lobe, is markedly enlarged.

M.N. 1108.

LARYNX and UPPER PART of the TRACHEA: Tuberculous Ulceration. 22 : 56 · 1
23 : 56 · 1
22 : 55 · 3
23 : 55 · 3

The epiglottis and the aryteno-epiglottidean folds are very much swollen. The mucous membrane of the larynx is very much thickened generally; anteriorly, the surface is irregularly eroded; at the level of the vocal cords the swelling has almost completely obscured the normal structures. The most advanced ulceration is in the region of the cricoid cartilage, posteriorly, where an ulcer has occurred which has passed down to and eroded the cartilage. The mucous membrane of the trachea, especially that in a direct line under the cricoid ulcer, shows marked thickening and irregular ulceration.

M.N. 1109. D.B. 1196A. Feb., 1891. Dr. Harris.

LARYNX, TRACHEA and TONGUE: Tuberculous Ulceration. 22 : 56 · 1
23 : 56 · 1
31 · 2 : 56 · 1

The posterior part of the tongue, the whole of the larynx, and the upper part of the trachea are the site of tuberculous inflammation. The epiglottis and the aryteno-epiglottidean folds have almost completely disappeared. The mucous membrane of the larynx and upper part of the trachea is thickened and covered by a yellow granular layer of necrosed inflammatory exudation. The intestine in this case showed tuberculous inflammation. (See intestine M.N. 1969—35·2 : 56·1.)

M.N. 1121. D.B. 626. January, 1888.

LARYNX OF A COW: Tuberculosis. 22 : 56 · 1

The specimen shows one half of the larynx. The tumour occupies the anterior and lateral part of the larynx, above and below the anterior commissure of the vocal cords. The tumour mass is in three portions. Two of these project for about a half to one inch into the cavity of the larynx. The other, which is directly continuous with the lower of the two internal masses, projects externally as a flat rounded mass, which is about an inch in thickness. The upper two rings of the trachea are embedded in the tumour. The surface of the tumours is smooth, covered by mucous membrane. The cut surface of all three parts of the tumours is pitted by small rounded cavities, varying from the size of a pin head to that of a cherry stone. In the larger cavities there is a mass of caseous matter.

Microscopic examination shows that the tissue is tuberculous in character.

M.N. 1594B. D.B. 1936. Dr. HARRIS.

LARYNX and TRACHEA: Tuberculous Inflammation. 22 : 56 · 1
22 : 55 · 3

There is extensive tuberculous inflammation, causing roughening and ulceration in the mucous membrane of the respiratory passage for the level of the epiglottis down to the bifurcation of the trachea. It is most severe in the region of the vocal cords, where an excavating ulcer has formed at the anterior commissure, but it extends continuously down the whole length of the trachea. (See lung M.N. 1594A—25 : 56·1.)

M.N. 2836. D.B. 4092. P.M.M. 419. May 27, 1903. Dr. HARRIS.

LARYNX: Tuberculous Ulceration. 22 : 56 · 1
22 : 55 · 3
85 : 44

The mucous membrane shows extensive ulcers, irregular in shape, in the region of the false cords. They extend up to the inter-arytenoid fold and down to the trachea. The ulcers are shallow except at one spot where there is exposure of the left half of the thyroid cartilage. In this case tuberculosis occurred also in the left kidney and ureter, the bladder and prostate, left testis, left vas, and left vesiculæ seminales. It was also present in the lungs, but not in the intestine. (See kidney M.N. 2835—51 : 56·1 and lung M.N. 2834—25 : 56·2.)

M.N. 2910. D.B. 2914. March 1, 1894. Dr. Buckley.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 3

The larynx is extensively disorganised by the tuberculous process. Only a small fragment of the epiglottis remains. Its base shows a roughened, broken-up mass of tissue, and extending from this point to below the level of the vocal cords; the whole surface shows extensive ulceration. The region of the arytenoid cartilage shows marked swelling of the mucous membrane, and on the right side there is also marked ulcerative destruction. The vocal cords are much thickened, and a large ulcer has formed on the border of each of them at the posterior end.

M.N. 2911. D.B. 2915. March 1, 1894. Dr. Buckley.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 3

The larynx shows extensive superficial ulceration. To the right of the tip of the epiglottis posteriorly there is a rounded oblong ulcer which has destroyed the mucous membrane. The mucous membrane at the base of the epiglottis is extensively ulcerated, especially on the right side. The true and false vocal cords are extensively ulcerated, and below the level of the vocal cords, the mucous membrane has a honeycombed appearance due to the occurrence of a multitude of pin-head ulcers, in the thickened mucous membrane. The arytenoepiglottidean folds of mucous membrane are a good deal thickened, but only partially ulcerated, and that on the inner aspect. The mucous membrane of the trachea shows numerous small, superficial ulcers in the areas between the rings of cartilage.

M.N. 2912. D.B. 2916. March 1, 1894. Dr. Buckley.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 1
22 : 55 · 3

The specimen shows papillomatous tumours of tuberculous origin affecting the zone of mucous membrane round the whole circumference of the larynx, between the base of the epiglottis, and the level of the vocal cords. The papillary outgrowths are of various sizes, and some of them indicate the presence of a considerable degree of ulceration. Below the level of the vocal cords, the mucous membrane is thickened, and shows a considerable number of very superficial small ulcers.

M.N. 2913. D.B. 2917. Mareh 1, 1894. Dr. Buckley.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 3

The tubereulosis in this case is of a very destruetive type. A large part of the epiglottis has been destroyed, and the whole of the mucous membrane of the larynx, down to the level of the middle of the ericoid cartilage, shows very extensive uleeration. The mueous surface might be deseribed as the floor of one large uleer oeeupying the whole area. The vocal eords, true and false, have been almost eompletely destroyed. Below the level of the large uleer the mueous membrane is thiekened and studded with numerous pin-head ulcerations.

M.N. 2914. D.B. 2918. Mareh 1, 1894. Dr. Buckley.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 3
23 : 56 · 1
23 : 55 · 3

The larynx in this ease shows a very destruetive form of tuberculosis affeeting the lower portion of the laryngeal mucous membrane and that of the upper part of the traehea. The tissue destruetion is most marked in the traehea, where uleers have destroyed the mucous membrane, and exposed the cartilages in parts, while the portions of mucous membrane remaining are beeoming separated in flakes. Above this level there is to be observed general swelling of the mueous membrane of the larynx, and the formation of superfieial uleers, espeeially in the region below the level of the vocal cords.

M.N. 2915. D.B. 2919. Dr. Buckley.

LARYNX: Tuberculosis. 22 : 56 · 1
22 : 55 · 3

The zone of the larynx chiefly affected in this ease is that lying between the base of the epiglottis and the true vocal cords. Over the whole of this zone the mueous membrane shows thickening and ulceration, espeeially marked on the right side. At the posterior end of the right vocal eord, and just below it, a deep poeket-shaped ulcer has formed in the mucous membrane; while still lower in the same line, the mucous membrane is markedly thickened, and shows pin-head uleerations.

LARYNX: SPECIFIC INFLAMMATIONS, EXCLUDING TUBERCULOSIS.

M.N. 1091. D.B. 1133. Aug. 6, 1890.

LARYNX: Diphtheria. 22 : 56 · 8
22 : 54 · 3

Practically the whole internal surface of the larynx is covered by a thin ragged layer of false membrane. It has almost completely hidden the vocal cords. At about the middle of the cricoid cartilage, anteriorly, the membrane has become detached from the wall and hangs into the lumen in the form of a free, triangular flap. The anterior wall of the trachea shows the operation wound for tracheotomy.

M.N. 1093.

LARYNX: Diphtheria. 22 : 56 · 8
22 : 54 · 3

The pharynx, the epiglottis, the cavity of the larynx and the œsophagus show the presence of a false membrane covering the mucous membrane with a thin, more or less continuous, layer. This has become partially detached, giving the surface a very ragged appearance. The membrane covering the interior of the larynx below the vocal cords has become completely detached, and now lies across the commencement of the trachea, where it closes the lumen like a valve. The mucous membrane, especially over the epiglottis and aryteno-epiglottidean folds, is very markedly thickened.

M.N. 1094. Dr. Ashby.

LARYNX: Diphtheria. 22 : 56 · 8
32 · 3 : 51

The larynx and trachea are laid open from behind. The tonsils are enlarged and the mucous membrane of the larynx and trachea is almost completely covered by a thick, false membrane, which is detached in parts.

M.N. 1095. D.B. 2320.

LARYNX: Diphtheria. 22 : 56 · 8
22 : 54 · 3

The specimen shows the pseudo-membranous formation of the exudate in a case of laryngeal diphtheria. Note the attachment of the membrane to the mucous membrane of the trachea.

M.N. 1110. TRINIDAD COLLECTION.

LARYNX: Ulceration due to Leprosy. 22 : 56 · 5
22 : 55 · 3
22 : 53
85 : 44

The epiglottis is distinctly thickened and irregular, especially at its free margins. At its base, and over the vocal cords in the mucous membrane of the larynx, there are numerous irregular ulcers, leading to deformity and to a worm-eaten appearance of the surface below the level of the cords. The perichondrium is stripped off the cricoid cartilage posteriorly, and there is an irregularly contracted thickening at the site of the arytenoid cartilages. Gangrene has commenced in this case.

The patient was a Parial Hindu, who had suffered from mixed leprosy for 8 years.

M.N. 1111. TRINIDAD COLLECTION.

LARYNX: Leprosy (?). 22 : 56 · 5

This specimen shows the larynx and tongue from a case of leprosy. The lesions are not distinctive, and a clinical note sent with the specimen suggests doubt as to the diagnosis of leprosy, and regards phthisis as equally probable. The zone of the larynx primarily affected is that lying between the base of the epiglottis and the vocal cords. The mucous membrane of this area is thickened and ulcerated. Below the vocal cords an ulcer has occurred at the angle of the thyroid, and the mucous membrane in the neighbourhood is generally thickened, and shows slight superficial ulcerations. The same condition prevails in the trachea.

M.N. 1113. D.B. 888. May 19, 1889.

LARYNX: Syphilitic Thickening and Ulceration. 22 : 56 · 3
22 : 55 · 3
22 : 53
85 : 44

The epiglottis is extremely thick, and shows, especially along its free margins, a continuous rounded, nodular, thickening. The mucous membrane of its posterior surface, and of the larynx below, shows irregular thickening and superficial erosion. The mucous membrane over the cricoid cartilage shows thickening, and there is a certain amount of perichondritis. There is considerable, irregular swelling of the true vocal cords, and ulceration has occurred at the posterior end of the right vocal cord, and about the middle of the left vocal cord.

M.N. 1114. Dr. C. E. Richmond.

LARYNX: Syphilis. 22 : 56 · 3
22 : 55 · 3
85 : 44

The specimen is the larynx and upper part of the trachea of an adult, laid open from behind. The cricoid is seen with the posterior part of the ring denuded of the perichondrium, and with roughened pitted surface from superficial erosions. In the recent state the affected part of the cartilage was bathed in pus. The soft parts in the neighbourhood are thickened and infiltrated. The mucous membrane of the larynx shows general thickening and is corrugated. Superficial erosions are also seen. The tracheotomy wound is seen on the anterior wall of the trachea.

M.N. 1115.

LARYNX: Syphilitic Ulceration. 22 : 56 · 3
22 : 55 · 3
85 : 44

The specimen shows the larynx and upper part of the trachea. Between the base of the epiglottis and the vocal cords, on both sides, the mucous membrane is thrown into irregular folds. There is a marked swelling over the cricoid and arytenoid cartilages, and at one point in the middle line, posteriorly, towards the base of the cricoid cartilage, the mucous membrane has given way. A section of the swollen tissue shows an irregular excavation of the cartilage and perichondrium. The trachea is normal.

M.N. 1116.

LARYNX: Syphilitic Ulceration. 22 : 56 · 3
22 : 55 · 3

The epiglottis is thickened, rounded, contracted, and ulcerated on its posterior aspect. The mucous membrane from the base of the epiglottis over practically the whole of the larynx is the seat of an ulcerative process, which has destroyed the vocal cords, and given rise to an irregularly contracted and uneven surface. Anteriorly the base of the ulcer is in the substance of the thyroid cartilage.

M.N. 1117. Mr. Turner.

LARYNX and TRACHEA: Syphilitic Ulceration. 22 : 56 · 3
23 : 56 · 3
23 : 55 · 3
22 : 55 · 3
85 : 44

The specimen shows the larynx and about 1 inch of the trachea. At the posterior and postero-lateral part of the larynx, at the level of the cricoid cartilage, a large, irregular ulcer has occurred. A part of the ulcer has the stripped cartilage as its base, and the cartilage shows superficial necrosis. Above this the ulcer has an irregular pitted form where it invades only the mucous membrane. In the trachea, anteriorly, in the middle line, there is an ulcer with a very ragged floor, consisting of tags of mucous membrane. This ulcer is about the size of a sixpence.

M.N. 1119. D.B. 756. July 2, 1888.

TRACHEA: Syphilitic Stenosis. 22 : 56 · 3
22 : 55 · 5

The mucous membrane of the larynx is thrown into folds from cicatricial contraction. There is not very marked erosion, but the surface is somewhat ragged. The upper part of the trachea for about one inch shows a marked cicatricial contraction leading to stenosis of the lumen, which now admits only a rod smaller than a lead pencil. The remainder of the trachea is healthy.

M.N. 1521. D.B. 2406. P.M.S. 1892, No. 110. Feb. 26, 1894. Mr. Southam.

LARYNX: Diphtheria. 22 : 56 · 8

The specimen shows irregular thick layers of diphtheritic membrane loosely adherent to the anterior wall of the larynx in the neighbourhood of the tracheotomy wound.

The patient was a boy, aged 6.

M.N. 2273. Mr. Stanmore Bishop.

LARYNX, TRACHEA: Diphtheria. 22 : 56 · 8
22 : 54 · 3

The mucous membrane is lined throughout with a thick layer of false membrane; this is especially abundant in the upper part of the trachea, where it is becoming detached from the surface. The wound of tracheotomy is seen in the middle line.

M.N. 3040. Mr. Southam.

LARYNX: Diphtheria. 22 : 56 · 8
23 : 91

The specimen consists of the larynx and portion of the trachea of a child, opened posteriorly. False membrane is seen adherent to the back of the epiglottis and to the mucous membrane of the larynx extending below the vocal cords, especially on the right side. The operation of tracheotomy had been performed, and a glass rod had been inserted into the wound.

LARYNX: BENIGN TUMOURS.

M.N. 1120.

LARYNX: Fibroma. 22:63·2

From about the middle of the left side of the larynx, immediately underneath the vocal cord, there is a short finger-like projection, about $\frac{1}{2}$ inch in length, somewhat swollen at the tip, and constricted towards the base. This mass is covered by a comparatively smooth, mucous membrane. The vocal cord above its insertion shows some inflammatory thickening.

A microscopic examination shows that this polypoid tumour is a fibroma.

TRACHEA: MALIGNANT TUMOURS.

M.N. 3648. D.B. 3996. June 1902. Dr. Harris.

TRACHEA: Squamous Epithelioma. 23 : 66 · 1

The specimen consists in the larynx, trachea, and œsophagus. On the anterior surface of the trachea a tumour is observed projecting into the lumen as a rough papillomatous fungating mass. Nodules of growth have formed in the glands round the trachea at this level, but the œsophagus is not involved. Microscopically the tumour shows the structure of a very vascular squamous epithelioma.

BRONCHUS: FOREIGN BODIES, THERMAL LESIONS.

M.N. 1089. D.B. 1141. April 5, 1890.

BRONCHI and TRACHEA: Inflammation from Scalding. 24 : 29 (54 · 2)
23 : 29 (54 · 2)
23 : 91

Immediately below the cricoid cartilages is seen a thick, irregular, rough layer, composed of fibrinous membrane, covering the inner wall of the trachea and bronchi. In some places it is partially detached, and the broken fragments have fallen down and almost completely occluded the lumen. Towards the upper limit of this membrane there is the opening of the wound of tracheotomy.

The patient was a child, aged 3 years, who suffered from exudative inflammation of the trachea and bronchi, arising from scalding.

M.N. 1131.

BRONCHUS: Foreign Body. 24 : 28

A marine shell is impacted in a branch of the right bronchus.

M.N. 1132.

BRONCHUS: Foreign Body. 24 : 28

The specimen shows larynx, trachea, bronchi, and lungs. The trachea and right bronchus have been opened down the middle, posteriorly, and from the right bronchus there projects a large part of the stem of a clay pipe. In this specimen the anterior border of the lung has been raised.

BRONCHUS: CASTS.

M.N. 1097. Mr. Turner.

BRONCHUS: Cast. 24 : 46

A bronchial tree about 6 inches in length with a single grey stem which branches out dichotomously into a large number of divisions. The surface is fairly regular and shows throughout, down to the smallest branches, little rounded spaces, due to the presence of bubbles of air in the material of which the cast is composed.

M.N. 1098. D.B. 374. Sept. 11, 1886.

BRONCHUS: Cast. 24 : 46

Bulbous swellings occur on the brownish-coloured stem and dichotomous branchings of this tree, at irregular intervals, and it does not present the gradual uniform tapering form which a simple cast of the bronchi presents. The tree is over six inches in length. The patient suffered from fibrinous bronchitis.

M.N. 2917. D.B. 3440. Prof. Leech.

TRACHEA and BRONCHI: Diphtheritic Cast. 24 : 46 (56 · 8)
23 : 46 (56 · 8)

The specimen consists of a very complete cast of the lumen of the trachea, formed by the false membrane which was deposited on the surface affected by diphtheritic inflammation. The markings of the cartilaginous rings of the trachea are clearly seen, and the gradually tapering form of the larger-sized bronchi is also to be made out from the form of the cast.

The patient died soon after the expulsion of the cast.

M.N. 2918. D.B. 4003. Dr. Craven Moore.

BRONCHI: Cast. 24 : 46 (56 · 1)

This specimen is a cast of the air passages which was found in the sputum expectorated by a patient suffering from phthisis. On examination the cast was found to contain a large number of tubercle bacilli.

BRONCHUS: MALIGNANT TUMOURS:

M.N. 2882. D.B. 4207. P.M.M. 563. Mar. 30, 1904. Dr. Harris.

LUNG: Epithelioma of the Bronchus. 24 : 66 · 1
25 : 66 · 1
26 : 55 · 1
26 : 54 · 2

The specimen shows the right lung and pleura. The pleura was firmly adherent throughout, except over the axillary and posterior aspects of the lower lebe where the layers were widely separated by a thick spongy mass of pale yellow fibrin, in whose meshes was pale, yellow, thick, slightly turbid fluid. Both layers of the pleura are much thickened, firm, and of an opaque, greyish-white colour. The lung is normal in size. The general contour is regular, the weight 55 ozs. The lung felt firm, but the mediastinal half of the upper lobe felt cystic, and on section showed a soft, pulpy, greyish-white mass, without unpleasant odour. Near the hilum are numerous soft, white, rounded masses, the largest the size of a plum, having regular, well-defined outlines. The apex is firm and grey granite-like in colour, incompressible, airless, and anæmic. The middle lobe is firm and grey throughout, like the apex of the upper lobe. The lower lobe is collapsed. A large, white, irregular soft nodular mass occludes the right bronchus as far as the trachea. This is connected with the tumour in the lung.

Microscopic examination shows the structure to be that of typical squamous epithelioma. It had invaded the mediastinal glands.

The patient complained of shortness of breath. There was complete dulness over the right lung. The breath sounds were deficient and there was gradual weakness and exhaustion.

LUNG: CONGENITAL ABNORMALITIES.

M.N. 3699. D.B. 4816. P.M.S. 488. Feb. 2, 1906. Mr. Plati.

LUNGS: Transposition. 25 : 11

These lungs were obtained from a woman, aged 31, in whom there was complete transposition of viscera. It is seen that the left lung has three lobes and the right one has two. The lungs are otherwise normal. (See heart M.N. 3700—12 : 11, and liver M.N. 3701—36 : 11.)

LUNG: MECHANICAL LESIONS, INCLUDING EMPHYSEMA AND COLLAPSE.

M.N. 1146.

LUNG: Emphysema. 25 : 27 · 3
26 : 53

The specimen shows a portion of the free border of the lung in a state of very advanced emphysema. The lung tissue generally is very much expanded; but towards the margin the expansion has become extreme, giving rise to the formation of rounded, cyst-like dilatations of the lung substance. The walls of these dilatations still preserve the markings of the over-stretched alveoli. The pleura is thickened and the lung tissue is moderately pigmented.

M.N. 1147. May 8, 1886.

LUNG: Emphysema. 25 : 27 · 3

The specimen consists in a small portion of emphysematous lung. It is emphysematous throughout, and at the free edge there is a bulla, which has been laid open and shows internally, in a most instructive manner, an extremely delicate tissue, consisting of greatly stretched and atrophied alveolar walls.

M.N. 1148. Dr. Leech.

LUNG: Emphysema. 25 : 27 · 3

The specimen shows the anterior margin of the upper left lobe. The lung is markedly pigmented and at its free margin it shows a large sub-pleural emphysematous bulla. Generally the lung substance is very dilated from emphysema, and is of a slaty-grey colour.

M.N. 1150.

LUNG: Emphysema. 25 : 27 · 3

This specimen shows a portion of the lung at the free margin of which there has been formed an emphysematous bulla about the size of a walnut. The pleura over the lung, near the base of this bulla, is curiously drawn and thrown into folds, as if the bulla consisted of lung-tissue which had been protruded through a narrow ring. The pleura is thickened and roughened from some old-standing pleurisy.

M.N. 1531. D.B. 2342. P.M.M. 1893, No. 202. Jan. 30, 1894.

Dr. Graham Steell.

LUNG: Collapse following Pleurisy with Effusion. 25 : 26 · 1
26 : 55 · 1

The specimen consists of the right lung. The clinical notes state that the patient, a man, aged 58, engine-driver by trade, had suffered from ascites 4 months ago. Paracentesis showed that the liver and spleen were enlarged. The fluid re-accumulated. The patient went out of the Infirmary and returned again with the same complaint. Œdema of the legs and scrotum was slight. In the right pleura there was found at the autopsy extensive straw-coloured effusion, and the lung was displaced upwards and backwards, and compressed. It weighed $14\frac{1}{2}$ ozs. In addition to the compression, a porcelain-like thickening of the pleura had taken place, which caused marked deformity of the organ. The lung was crepitant throughout, but was somewhat more solid at the base. The peritoneum was extensively thickened, and the liver was globular, and covered with a thickened capsule. The heart was enlarged and slightly dilated; the condition of the cardiac orifices is not detailed.

M.N. 2818. D.B. 4052. P.M.M. 385. Mar. 25, 1903. Dr. Graham Steell.

LUNG: Sub-pleural Emphysema. 25 : 27 · 3
25 : 56 · 1
25 : 42 · 8
26 : 55 · 1

The pleura is much thickened at the apex over an old phthisical area. A series of round,dark nodules in darkly pigmented tissue, with here and there calcareous deposit, are seen, and almost the whole upper lobe is a mass of fibrous tissue. Near the root of the lung is a series of dark areas close to the surface, containing air, and here the pigment is concentrated. This is an unusual form of pulmonary emphysema. There was an old cavity of chronic phthisis in the other lung, and there were tuberculous ulcers in the intestine.

The patient was a male, aged 56.

M.N. 2872. D.B. 4177. P.M.M. 513. Dec. 16, 1903. Dr. Judson Bury.

LUNG: Interstitial Emphysema and Broncho-Pneumonia. 25 (82) : 27 · 3
25 : 52 · 1
26 : 55 · 1

The lung was enlarged, especially in the lower lobe. It weighed 35 ozs. The pleura is diffusely thickened and opaque throughout. The upper lobe was spongy, but the lower lobe was devoid of crepitation. On section a large number of closely packed air bullæ of various sizes are found beneath the thickened pleura at the apex. The lower lobe was firm, very friable, and made up of soft, yellow, well-defined areas up to the size of a shilling. These, on pressure, exuded a non-frothy, puriform fluid. No healthy lung tissue was present in this lobe. The bronchi were filled with pus. The broncho-pneumonia was secondary to the ulceration of the trachea by an aneurysm. (See aorta aneurysm M.N. 2873—14·1 : 27·1.)

M.N. 2898.

LUNG: Sub-Pleural Emphysema. 26 : 27 · 3
25 : 56 · 1

This specimen shows a small portion of a lung. The pleura is thickened, and over the greater area of the surface the parietal pleura is adherent. Large sub-pleural bullæ have developed in the centre of the area of adhesions. The lung exhibits the fibrosis, cavity formation, and caseation of chronic tuberculosis. The sub-pleural bullæ communicate with the vomicæ in the substance of the lung.

M.N. 2941. D.B. 4258. P.M.M. 659. Nov. 28, 1904. Dr. Graham Steell.

LUNG: Emphysema. 25 : 27 · 3

Both lungs showed exactly similar characters. The right weighs 30 ozs., and the left 31 ozs. The specimen, which is the right lung, is much enlarged and did not collapse on opening the chest. The contour is retained. The surface is very pale pink. It shows very little pigmentation, and is smooth except for the remains of adhesions, widely scattered, especially over the middle and upper lobes. The edges are rounded, and there are numerous bullous swellings on the margins and apex, and on the diaphragmatic surface which retained its cup-shape outline. One of the bullæ on the inferior margin is seen to have exceedingly thin walls. On section the lung appeared to be dry, except the base, which was very moist and exuded much frothy, brownish, serous fluid. The lung tissue is not friable. The air vesicles are seen to be enlarged, both on the surface and on section, giving the lung a silvery-grey appearance. The tissue between the bullæ shows a moderate degree of congestion. The bronchi contained a moderate amount of opaque, non-frothy, yellow, muco-pus. (See heart, M.N. 2942—12 : 62·1.)

M.N. 2943. D.B. 4292. P.M.M. 675. Jan. 11, 1904.

LUNG: Emphysema. 25 : 27 · 3
26 : 55 · 1

The lung is moderately enlarged. The surface showed numerous large air bullæ at the apex and along the anterior border of the upper lobe. The larger bullæ have a tendency to linear distribution. The surface is smooth and moderately pigmented. The lung felt very soft, like an air-cushion. The pleura shows diffuse opaque thickening. On section the lung tissue crackled under the knife. It had a pale, greyish, somewhat dry surface, which gave evidence of dilated air vesicles. The bronchi exuded much muco-pus.

The patient was a male, aged 56. He was brought in dead.

M.N. 2945. D.B. 4259. P.M.M. 660. Nov. 30, 1904. Dr. Graham Steell.

LUNG: Collapse from Hydro-Thorax due to Heart Disease. 25 : 26 · 1

Both lungs showed similar changes. The right weighed $12\frac{1}{2}$ ozs., and the left $13\frac{1}{2}$ ozs. The specimen, which is the right lung, is small, and the diminution in size is most noticeable in the lower lobe, which was less in size than the middle lobe, and was tough, non-crepitant, and almost globular in shape, whereas the rest of the lung was crepitant. On section, the upper and middle lobes were seen to be normal. The lower lobe is dark grey, airless, and sinks in water. The cut surface is only slightly moist, and displays well-marked approximation of blood-vessels and bronchi. It is also very tough. The bronchi are congested. The pleura shows diffuse thickening and opacity.

The patient was a girl of 19. (For description of the heart of this case see M.N. 2944—13·1 : 55·5.)

M.N. 3425. D.B. 1491. May 10, 1892. Mr. Wright.

LUNG: Collapse with Chronic Pleurisy. 25 : 26 · 1
26 : 55 · 1

The lung is much diminished in size, and has a slaty-grey colour, and the parenchyma is homogeneous and airless. The pleura is much thickened and formed an uniform thick capsule to the contracted lung. The surface is smooth and free from adhesions, but is very wrinkled.

LUNG: CIRCULATORY DISORDERS.

M.N. 1152. D.B. 1084. May 3, 1890. Dr. Graham Steell.

LUNG: Brown Induration. 25 : 32 · 2
25 : 42 · 8
25 : 53

The specimen shows a section through the left lung; the pleura is very slightly thickened. It exhibits dilated lymphatics, especially at the base, and a series of small, whitish areas, about the size of a pin's head. There is no sign of pleurisy. Externally, there is only slight indication of emphysema at the free margin. On section, the parenchyma of the lung shows an immense number of small, rounded spaces, through the whole lung substance. These are, however, much more developed in the upper lobe. These cavities are due to emphysema. The lung substance between has a dark, brick-red colour, suggesting extensive extravasation of blood, or deposit of iron-containing pigment; but there are no large areas of consolidation. The bronchi contain a good deal of inspissated secretion. The bronchial glands are enlarged, and contain a mixture of black and red pigment.

Microscopic section shows that great proliferation has taken place in the alveolar walls, and in the connective tissue generally. This new tissue is chiefly fibrous in character, and contains a large amount of reddish pigment derived from the blood. Here and there are masses of lymphoid tissue.

M.N. 1546. D.B. 1290. July 18, 1891. Dr. Harris.

LUNG: Aspiration of Blood. 25 : 33

The specimen shows a portion of the lung, the alveolar spaces of which have been extensively filled up by aspiration of blood. The history of the case has been lost. The greater part of the blood aspirated has found its way to the lower portions of the lung.

M.N. 2933. D.B. 4303. P.M.M. 681. Jan. 24, 1905. Dr. Graham Steell.

LUNG: Hæmorrhagic Infarction. 25 : 36 · 1
26 : 54 · 2
15 · 2 : 34 · 1

Both lungs showed similar characters. The right lung weighed 22 ozs., and the left 19 oz. The lung is contracted, especially as regards the lower lobe. There is moderate pigmentation. Several firm nodules project slightly on the surface of the upper and lower lobes. On section these nodules are found to consist of well-defined areas of brick-red consolidation with soft centres, and with the periphery limited by a line of grey, consolidated tissue. They are most abundant in the upper lobe and especially at the margins. The lung is otherwise spongy and of normal consistence, though at the inferior margin there are some enlarged air vessels. On the pleural surface, over the areas of infarction, and in the neighbourhood, a thin fibrinous layer has been deposited indicating recent pleurisy. At several points there has been slight hæmorrhage. At the apex of the infarction a pulmonary artery is seen passing to it from the hilum of the lung, and its lumen is filled with a white thrombus. Small areas of extravasation of blood are seen throughout the parenchyma of the lung.

The patient was a male aged 21. (The heart showed mitral stenosis, M.N. 2963—13·1 : 55·5.)

M.N. 2953. D.B. 4273B. P.M.M. 667. Dec. 21, 1904.

LUNG: Aspiration of Blood. 25 : 33

The surface shows the remains of old fibrous adhesions. There is a large amount of extraneous pigment. In the upper part of the lung especially are large numbers of small emphysematous dilatations. The parenchyma displays a moderate degree of congestion, and under the pleura, especially on the diaphragmatic surface, are seen small areas of hæmorrhage. On section it is seen that, through the lung substance surrounding the hilum in both the upper and lower lobes, there is widespread hæmorrhagic infiltration. This arose partly from direct laceration of the lung tissue by the rupture of an aneurysm on the descending aorta, and partly by insufflation of blood which at the same time had entered a large bronchus. (See aorta M.N. 2951—14·1 : 27·1 and heart M.N. 3297—12 : 62·1.)

M.N. 2957. D.B. 4317. P.M.M. 694. Feb. 9, 1905. Dr. Graham Steell.

LUNG: Hæmorrhagic Infarction. 25 : 36 · 1
15 · 2 : 34 · 1
26 : 54 · 2

The specimens are two small sections of the lung, each of them showing an infarction. In the larger of the two the section shows thrombosis of the pulmonary vein leading from the infarcted area. The area of infarction is much more completely filled with blood in its lower part, while the upper is ill-defined and consists rather in a condition of diffuse hæmorrhage. The whole area is roughly wedge-shaped. The sections were taken from the right lung. There were numerous infarctions present through this lung. There was only one infarction in the left lung, and while the right lung was free from adhesions the left was adherent throughout the pleural sac.

The patient was a male aged 28. The heart showed mitral stenosis, hypertrophy and dilatation. (See heart M.N. 2956—13·1 : 55·5.)

M.N. 3676. D.B. 4740. Nov. 16, 1905. Mr. C. Roberts.

LUNG: Tardieu's Spots. 25 : 33 · 2
26 : 33 · 2

On the somewhat congested pleural surface are seen numbers of small ecchymoses. They occurred as the result of "overlaying" of an infant.

LUNG: RETROGRESSIVE DISORDERS.

M.N. 1156. D.B. 902. Oct. 18, 1889. Dr. Harris.

LUNG: Gangrene. 25 : 44 · 5
25 : 54 · 3
26 : 54 · 2

The specimen shows a section of the right lung. The lung tissue generally shows marked carbon pigmentation. The carbon pigment is collected chiefly in the connective tissue round the smaller bronchi. Near the apex of the lower lobe there is an irregularly-shaped triangular cavity, from the walls of which filmy shreds of tissue are hanging free. The tissue forming the wall of the cavity appears condensed and consolidated, and the interlobar pleura at the site is much thickened. A smaller cavity has commenced to form near this in the upper lobe. Round these two cavities the lung tissue has become consolidated, and nearly the whole of the lower, and the lower part of the upper, lobe have become involved. The rest of the lung is free from consolidation. The pleura immediately over the larger cavity is covered with a thick layer of fibrin. This is very localised, however, and the remainder shows no definite change. There is a large amount of fibrinous thrombus in the blood-vessels. The gangrene resulted from extension to the lung of an epithelioma of the œsophagus. (See œsophagus M.N. 1826—33 : 66·1.)

M.N. 1157.

LUNG: Gangrene. 25 : 44 · 5
25 : 55 · 3
26 : 55 · 1
25 : 52 · 1

The pleura is very markedly thickened over the whole of this portion of the lung. On the cut surface there is situated, about the middle of the lung, a large, rounded cavity, and from this down to the base, extend irregular cavities of less dimensions. The walls of these cavities are all composed of lung substance, showing evidence of a rapid process of destruction of the lung. Stretching across the cavity are strands of fibrous tissue covered with a little of the lung parenchyma. In these run the blood-vessels and bronchi, and

these strands have had more power than the spongy parenchyma of withstanding the disintegration process. Around, and especially below the cavities, the lung tissue shows areas of consolidation, more or less confluent, yellow, and necrotic looking, and in some instances commencing to break down. From the prominence of the smaller bronchi, and the consolidation round them in the partially affected areas, it is clear that virus was in this case spread by the bronchi.

The patient suffered from diabetes.

M.N. 1158.

LUNG: Gangrene. 25 : 44 · 5
26 : 54 · 2

Over a portion of the pleural surface a membranous layer of fibrin has been deposited, part of this has become detached. A section of the lung in the area corresponding to this has been made, and exposes under the inflamed pleura a large, irregularly rounded cavity, the walls of which are at some points remarkably clean cut, and at others are rough, and show ragged masses of lung tissue. Stretching across the cavity are strands of fibrous tissue, in which lie blood-vessels and bronchi. In the cut ends of the blood-vessels plugs of fibrin are seen. The lung tissue around is very grey in colour, and has an appearance of excessive infiltration with œdematous fluid and inflammatory exudate.

M.N. 1202.

LUNG: Gangrene. 25 : 44 · 5
25 : 44 · 6
26 : 55 · 1

The pleura is very much thickened, and there has been mischief antecedent to the gangrene to account for this chronic thickening. The walls of the cavity have been formed by the thickened pleura, and by the lung parenchyma, which is now in irregular shreds. The parenchyma which remains is grey in colour, and has the appearance of œdema, but there is no evidence of fibrinous exudation into the alveoli. The cavitation takes the form of multiple rounded cavities. The tissue separating these cavities is the interlobular connective tissue.

LUNG: ACUTE AND CHRONIC INFLAMMATION.

M.N. 1153.

LUNG: Anthracosis. 25 : 53
25 : 42 · 8
26 : 53

The pleura displays a number of ragged fibrous adhesions, and considerable thickening, and the cut surface shows that the lung tissue is loaded with extraneous black pigment. The pigment, while it is diffused through the whole lung, is concentrated in a wedge-shaped area in the middle of the organ in a striking manner, and in a layer of lung tissue immediately beneath the pleura and continuous with the wedge-shaped area. The different appearances presented in this lung are apparently due to the development of emphysema in those parts which seem to contain less pigment. There is no sign of tuberculosis.

M.N. 1155.

LUNG: Anthracosis. 25 : 53
25 : 42 · 8
26 : 55 · 1

The pleura is very much thickened by a layer of fibrous tissue free from carbon pigment. This thickening does not extend, however, to the whole pleura of the specimen. The parenchyma of the lung is uniformly infiltrated with carbon pigment. The fibrous tissue of the interlobular septa stands out as clear white bands.

M.N. 1159.

LUNG: Croupous Pneumonia. 25 : 54 · 2

The specimen consists of a triangular slice of lung tissue. The surface of section shows that the lung has been in this area completely consolidated. The appearance is that of grey and red mottling. The chief portion of the tissue is dull grey, and the remainder is dull red in colour. The red areas are outlined by the septal divisions of the lobules. The lung therefore shows the process of pneumonia at different stages (red and grey). The lung has a very distinct tendency to break, showing the extreme friability of the organ in the condition of pneumonic consolidation.

M.N. 1160.

LUNG: Croupous Pneumonia. 25 : 54 · 2

The pleura shows on its surface the remains of a membranous deposit of fibrin. In the sub-pleural connective tissue there is an excessive deposit of carbon pigment marking out the lobules. On the cut surface the lung is seen to be completely consolidated in this portion. It has a dirty greyish-red colour. On close examination may be seen here and there groups of alveoli from which the exudate has dropped out after the section was made. The mouths of the blood-vessels are fully dilated owing to the fact that the lung retains the form of full expansion. The bronchi are filled with exudate. The pneumonia is in the stage of grey consolidation.

M.N. 1162. D.B. 502. May, 1887.

LUNG: Croupous Pneumonia, Tuberculosis. 25 : 54 · 2
25 : 56 · 1 (44 · 2)
25 : 53
26 : 54 · 2
26 : 55 · 1

This specimen consists in the half of one lung. There is evidence of both old standing and recent pleurisy. A great part of the lung is covered by a thick layer of fibrous tissue, which has arisen from chronic inflammation of the pleura. Over the part of the lung which is not covered by this a recent inflammation has caused the deposition of a layer of fibrin, which is seen becoming detached at several points. The lung has retained the form of full expansion. On the cut surface it can be seen that practically the whole of the parenchyma has become consolidated. The surface presents the slightly granular character which is found on the cut surface of pneumonic lung tissue. The specimen is bleached by the spirit, but it is also pale from the anæmia of the grey stage of hepatization which had been reached. The consolidation is very uniform throughout. The inter-lobar pleura is markedly thickened, and the fibrous tissue at the hilum is slightly increased. The apex of the lung has been the seat of old standing tuberculosis which had become quiescent. The outline of the apex is deformed, and on the cut surface there is seen a densely black, rounded mass of fibrous tissue in the midst of which are several yellow, caseous or calcified centres of old necrotic foci of tuberculosis. Immediately over this area the pleura is very greatly thickened. (See lung M.N. 1197—25 : 56·1.)

M.N. 1164.

LUNG: Indurative Pneumonia; Bronchiectasis. 25 : 53
25 : 55 · 3
26 : 55 · 1
24 : 27

The pleura is very much thickened with fibrous tissue. On the cut surface of the upper lobe the lung presents a large number of rounded cavities, varying in size, the smaller ones being the mouths of dilated bronchi. These cavities are smooth-walled, and the walls are not more condensed than the rest of the lung parenchyma. The lower lobe shows similar cavities but there they have not reached such a large size. The inter-lobular pleura is very much thickened. The structural changes here noted, have resulted from the termination of croupous pneumonia by induration, and the cavity formation has been due partly to softening of the consolidated lung, and partly to the contraction of the lung tissue which gradually results. The upper lobe is much paler than the lower, and is much more damaged by the indurative process.

M.N. 1165. Dr. Dreschfeld.

LUNG: Broncho-Pneumonia. 25 : 52 · 1
25 : 55 · 4
26 : 55 · 1

The pleura is exceedingly thick from increase of fibrous tissue leading to complete occlusion of the pleural cavity. At the base of the lung the diaphragm has remained attached. The cut surface shows in the apex old-standing cicatricial overgrowth which has completely replaced the lung tissue. In the midst of this there are two or three cavities irregularly rounded with necrotic tissue or exudation on their walls, and resembling small tuberculous cavities of chronic formation. In the rest of the lung the parenchyma has not been replaced by fibrous tissue. It is, apart from a considerable load of carbon pigment, pale in colour, and areas of consolidation are to be observed scattered irregularly throughout the whole surface. A considerable number of these show central softening and discharge of the softened material. The fibrous tissue round the root of the lung is excessively thickened. The blood-vessels and bronchi are embedded in a dense mass of fibrous tissue, and have been very markedly compressed. Some of the areas of consolidation have become suppurative.

M.N. 1166. D.B. 951. Nov. 23, 1889. Dr. Harris.

LUNG: Broncho-Pneumonia.

25 : 52 · 1
15 · 2 : 34 · 1
26 : 54 · 2

On the outer aspect of the lung there are signs of recent pleurisy. The pleural membrane has been congested, and a delicate layer of fibrinous deposit is seen on the surface. Around the hilum there is a group of enlarged lymphatic glands. On the cut surface the lung exhibits here and there areas of greyish consolidation, especially along the posterior border of the lung. The areas are rounded, and in one or two cases have become broken down. The pulmonary veins over a large part of the lung show white clot occupying the lumen. The bronchial wall at its cut ends stands out rather prominently in every case in that part of the lung in which the consolidated areas are situated. (See lung M.N. 1167—25 : 56·1.)

M.N. 1529. D.B. 1285. P.M.M. 1891, No. 16. July 14, 1891. Dr. Harris.

LUNG: Fibrosis with Bronchiectasis.

25 : 53
26 : 55 · 1
26 : 54 · 4
24 : 27 · 1
24 · 1 : 55 · 1

The specimen consists in a portion of the right lung. The pleural surface shows inflammatory deposit, and thickening, due to the presence of empyema. The pus in the sac was putrefactive (foul smelling). The cut surface shows a thickened pleural septum dividing the spongy lower lobe from the upper lobe. The upper lobe is much contracted, and forms an elongated strip about 2 ins. broad. The tissue is airless, and the lung parenchyma is replaced by fibrous tissue. The bronchi are seen closer together than normal, their walls are thick and fibrous, and some of them show a dilated lumen. There is no caseation or other evidence of tubercle.

M.N. 1537. D.B. 2488.

LUNG: Anthracosis. 25 : 53
25 : 42 · 8

This specimen is the left lung, and it shows the black pigmentation which results from the inhalation of carbon dust. The pleura, though rough in places, is free from any signs of general pleurisy. The apex shows a few localised scars due to healed phthisis. The scar-tissue is yellow, and less loaded with pigment than the rest of the lung tissue.

M.N. 1538. D.B. 1268. P.M.M. 1891, No. 8. Dr. Graham Steell.

LUNG: Silicosis 25 : 53
25 : 42 · 8
26 : 55 · 1
25 : 27 · 3

The specimen shows a portion of the lung in a condition of fibrosis from the inhalation of iron and stone dust. Through the deeply pigmented parenchyma there are nodules of fibrous tissue, varying in size, having a very dense structure and of a very black colour. To the touch these nodules have an almost stony hardness. On the pleural surface there is old-standing inflammation which has led to adhesions. Around the free border of the lung the tissue has become very markedly emphysematous; but the whole of the parenchyma is abnormally open, the alveoli being moderately dilated throughout.

Microscopic examination shows patches of fibrous tissue loaded with extraneous pigment and containing in the centre a mass of pigment surrounded by a ring of hyaline fibrous tissue relatively free from pigment.

The patient was a steel grinder aged 56. He suffered from marked dilatation of the heart, especially on the right side. He had ascites and nutmeg liver.

M.N. 1547. D.B. 1215. P.M.M. 1889, No. 299. Dr. Graham Steell.

LUNG: Croupous Pneumonia. 25 : 54 · 2

The specimen is a section of the right lung, which is almost completely consolidated. The right lung was in a state of red hepatization. The left lung was somewhat less completely consolidated, but was in a more advanced stage of the disease. (See dura mater M.N. 1069—71 : 42·9.)

M.N. 1548. D.B. 175. Dec. 23, 1885.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2
26 : 55 · 1
25 : 27 · 3
24 · 1 : 55 · 1

The specimen consists of a vertical section of the lung. On the pleural surface there are the remains of a layer of recently deposited fibrin. At the apex there is also a considerable amount of fibrous thickening of the pleura. On the cut surface it is observed that the lung is completely consolidated except a very small portion at the apex where there has been some slight emphysema. The appearance of the consolidated area is that of red hepatization passing into the grey stage. At the inner angle of the base there is a small triangular area which is of a uniform grey colour in which the pneumonic process is in a more advanced stage than in the rest of the lung. Note the slightly granular appearance of the cut surface. The connective tissue round the bronchi and vessels at the root of the lung is considerably thickened, and the glands are swollen and show in their peripheral zone an inflammatory exudate.

M.N. 1556. D.B. 2366. P.M.M. 1893, No. 205. Dr. Graham Steell.

LUNG: Abscess. 25 : 54 · 5

The specimen shows the right lung. In the lower lobe there are several well defined abscess cavities more or less distinct from each other, with walls thickened by the formation of a pyogenic membrane of granulation tissue. Probably these abscesses had been present for some time. The pus was very foul. The rest of the lung was much congested. There was also in this case a well-defined abscess in the cerebrum, in the right occipital lobe. The rupture of this into the right ventricle was the immediate cause of death.

The patient was a male, aged 24.

M.N. 1579. D.B. 329. P.M.M. 1884, No. 193. June 26, 1886. Dr. Simpson.

LUNG: Fibrosis and Bronchiectasis. 25 : 53
24 : 27
26 : 55 · 1

The specimen shows the base of the lower lobe and a portion of the middle lobe, and also the diaphragm attached to the lung by fibrous adhesions. The middle lobe appears incompletely consolidated, and shows evidence of wide-

spread broncho-pneumonia. It is very deficient in crepitation. The lower lobe is almost completely replaced by pale grey fibrous tissue, which is traversed by very numerous dilated bronchi, many of which have irregular contour on section, and all are surrounded by marked fibrous thickening of the peri-bronchial tissue. Some enlarged lymph-glands are seen.

Microscopic examination shows that in the lung parenchyma the alveolar walls are not thickened, but there is a large amount of desquamated cells and debris in the air-vessels. The inter-lobar pleura is greatly thickened by a very vascular fibrous tissue. The area of fibrosis shows a tissue composed of a fibro-cellular structure occurring in thick strands and separating irregular spaces in the cavity of which exudate has more or less accumulated; and in this area inflammation may be seen in various stages.

The patient was a male, aged 18. Both lungs were similarly affected. There was no sign of tubercle in this lung, but there was recent extensive tuberculosis of the left lung. The condition of the lower lobe in this case suggests congenital atelectasis.

M.N. 2774. D.B. 3985. P.M.M. 264. April 2, 1902.

LUNG: Lobar Pneumonia. 25 : 54 · 2
26 : 54 · 2

From the specimen, which is the half of one lung, it is seen that the lung has retained the form of full expansion. The areas of pigmentation seen on the surface are stretched out, and on the pleura there are the remains of a layer of fibrin due to recent pleurisy. The pneumonia has occurred in the lower lobe, and the whole of this has become consolidated and presents on the cut surface a very uniform grey colour, and the granular aspect characteristic of croupous pneumonia. A small part of this lobe close to the hilum has been only partially consolidated. The rest of the lobe is completely airless. The upper lobe is very darkly pigmented, and the lower portion of it adjacent to the lower lobe has become partially consolidated and, as a consequence, the pigmentation colour has lost in depth. The pulmonary veins are filled with clot and have been dilated. There is a considerable increase in the thickness of the walls of the bronchi leading to the pneumonic lobe. (See lung M.N. 3433—25 : 54·2.)

M.N. 2935. D.B. 4299. P.M.M. 679. Jan. 20, 1905. Dr. Harris.

LUNG; Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The specimen consists in slices of the left lung. It weighed 18 ozs. It was somewhat smaller than normal. The surface of the section is greyish-red in colour, characteristic of the later stages of red hepatization. Near the base are grey areas; one of these is much larger than the others and has a serpiginous outline. There is a ragged covering of fibrin over the pleural surface, and into this there was a considerable amount of blood extravasated.

The section under the microscope shows the lung tissue intensely congested. The alveoli are filled with a cellular exudate with a large preparation of alveolar cells which have mingled with those extravasated from the blood-vessels. The bronchial tubes are filled with catarrhal exudation. Amongst the cells in some of the alveoli there is a meshwork of fibrin threads.

The patient, a male aged 17, died on the 7th day of his illness.

M.N. 3321. D.B. 4364. P.M.M. 703. Mar. 28, 1905. Dr. Dreschfeld.

LUNG; Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The lung weighs 38 ozs. There is a large area of firm consolidation occupying the adjacent halves of the upper and lower lobes. The consolidated area had a moist, reddish grey, finely granular surface, which exuded much puriform fluid, and was friable and airless. The portion affected in the lower lobe is distinctly redder than that affected in the upper lobe. The whole of the consolidated area shows an irregular mottling (grey and red) indicating that the process of inflammation had reached different stages of development in closely adjacent portions of the lung tissue. The margin of the whole area is ill-defined. The rest of the lung is spongy, and was somewhat hyperæmic, and the pleura shows a slight deposit of fibrinous exudation over the consolidated portion of the lung, and its cavity contained about 4 ozs. of slightly turbid pale yellow, serous fluid, in which were flakes of fibrin.

Microscopic examination shows there is an unusually large number of polymorphonuclear cells extravasated in the alveoli.

The patient was a male aged 40, the subject of chronic parenchymatous nephritis. (For description of the kidney from this case see M.N. 3365—51 : 52·2.)

M.N. 3422. D.B. 3002.

LUNG: Stonemason's Lung, Silicosis. 25 : 53
25 : 42 · 8
26 : 55 · 1
26 : 55 · 7

This specimen is the left lung. The pleura is very much thickened, and adhesions have formed between the visceral and parietal layers as a soft meshwork of fibrous tissue. The pleural surface shows a nodular unevenness throughout, and this is due to the formation in the substance of the lung of very dense fibrous nodules. The cut surface shows that similar masses are to be found scattered through the whole of the lung, composed of blackish-grey fibrous nodules. The lymph-glands at the root of the lung are of stony hardness. There are no signs of vomica formation from intercurrent phthisis in this case.

Microscopic examination:—The lung shows large patches and nodules of fibrous tissue, in the centre of which the fibres have arranged themselves in concentric whorls, in the middle of which are particles of silica.

M.N. 3433. D.B. 3985. P.M.M. 264. April 2, 1902.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The specimen consists in a slice of the left lung. A large amount of carbon pigment has been deposited in the inter-lobular tissue. The pleura shows a thin covering of fibrin, indicating recent pleurisy. On section the lower lobe is seen to be completely consolidated, and the pneumonia has reached the stage of grey hepatization. The surface has the characteristic granularity of this condition. In the upper lobe there is partial consolidation. At its lower margin it is at or near the "grey" stage, but nearer the apex it is less regular and complete, and less advanced. The lung weighed 49 ozs.

The patient was a male aged 35, who suffered also from atheroma of the aorta and cerebral arteries, fatty degeneration of the heart and liver, and cardiac dilatation. The patient was brought in dead to the Infirmary. (See lung M.N. 2774—25 : 54·2.)

M.N. 3529. D.B. 4674. P.M.M. 741. July 31, 1905. Dr. Graham Steell.

LUNG: Chronic Broncho-Pneumonia. 25 : 52 · 2

This lung (left) weighed 21 ozs. It was of somewhat smaller size than normal. The pleura over the lower half of the lower lobe shows diffuse, opaque, fibrous thickening to a slight degree, and there is a slight amount of fibrinous deposit. There were no pleural adhesions, and no excess of fluid in the pleural cavity. The lower lobe feels very firm and inelastic. The cut surface was moist, and shows a well-marked, loose network of dark grey, fibrous tissue at the base, continuous with the thickened pleura. The meshes contain numerous yellow, friable patches of lobular consolidation, and some have softened, leading to the formation of small round cavities. A few consolidated patches are seen in the upper lobe. The rest of the lung was œdematous, and the bronchi were filled with thick yellow muco-pus. The other lung (right) weighed 31 ozs. Its lower lobe was the seat of a few patches of consolidation similar to those above mentioned; its pleura was universally adherent.

The patient was a male aged 67. He had pneumonia 2 years ago. He was admitted to M.R.I. in June, 1905, with pyrexia, cough, and dyspnœa. These persisted, and he lapsed into a typhoid state and died within 5 weeks.

M.N. 3568. D.B. 4341. P.M.S. 423. Feb. 25, 1905. Mr. Southam.

LUNG: Indurative Pneumonia. 25 : 55 · 1
26 : 55 · 1

The specimen shows a section of the right lung. At the autopsy the following notes were made:—The lung weighs 43 ozs. It is enlarged and shows no collapse on opening the chest. The surface of the pleura shows a few old adhesions over the whole surface. The visceral pleura is thickened and of a grey, opaque appearance, especially over the upper lobe. On section the lung was found airless except at the apex. The rest of the lung was grey in the upper part, but more of a red colour towards the base. The cut surface was markedly glistening and exuded a scanty amount of very viscid non-frothy fluid.

Microscopic examination shows that the indurated area is composed of solid tissue, the structure of the alveoli being completely obscured by the proliferation of connective tissue and extravasation of leucocytes. There is still a large amount of congestion.

M.N. 3655. D.B. 4720. P.M.M. 767. Nov. 1, 1905. Dr. Harris.

LUNG: Broncho-Pneumonia. 25 : 52 · 1

The organ (right lung) is of normal size and shape, and weighs 26 ozs. The pleura is somewhat thickened and shows the remains of fibrous adhesions. The whole lung felt firm, and was subcrepitant throughout, and of a bright red colour. The apex of the upper lobe, and the lower lobe, are the seat of very extensive broncho-pneumonic consolidation. This occupies fully two-thirds of the lower lobe, especially of its hinder portion. The patches are opaque yellow and are clearly defined on the cut surface. They are dry and firm but friable. The lung tissue in the neighbourhood of the consolidated patches is bright red and congested. A few similar patches were found in the apex of the lower lobe of the left lung. (See peritoneum M.N. 3654 A and B—38 : 66·5.)

M.N. 3657. D.B. 4710. P.M.M. 761. Oct. 20, 1905. Dr. Graham Steell.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The organ is much enlarged and weighed 54 ozs. It was of normal contour and felt very heavy. The upper lobe was very deficient in crepitation, and the lower lobe absolutely airless. The pleura covering the upper lobe is diffusely thickened and opaque, and that over the lower lobe is covered with a fibrinous exudation. The upper lobe on section was found to be the seat of much congestion and œdema. The lower lobe is firm and consolidated throughout, and the cut surface is smooth and of a deep red colour, but there are ill-defined grey patches of various sizes. The mucous membrane of the bronchi is injected. The right lung also showed several small patches of pneumonic consolidation in the hinder half of the lower lobe. (See heart M.N. 3656—13·1 : 55·6, and spleen M.N. 3658—45 : 36.)

M.N. 3659. D.B. 4724. P.M.M. 770. Nov. 6, 1905. Dr. Harris.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The lung (right) appeared somewhat enlarged, but of normal contour. It weighed 32 ozs. Only the following areas are spongy (*a*) apex of upper lobe, (*b*) whole of middle lobe, and (*c*) a fringe an inch deep along the base of the lower lobe. The rest of the lung is the seat of red pneumonic consolidation; it

is firm and absolutely non-crepitant. The cut surface has a deep, reddish-purple colour, and is of fairly homogeneous appearance, but in places in the upper lobes there are distinct, well-defined areas, where the red has changed to grey. The cut surface was somewhat moist and exuded much blood but no froth. The pleura is the seat of soft, yellow, spongy, fibrinous exudate, somewhat patchy in distribution. About an ounce of flaky, turbid, yellow, serous fluid was in the cavity.

M.N. 3661. D.B. 4712. P.M.M. 762. Oct. 23, 1905. Dr. HARRIS.

LUNG: Croupous Pneumonia, Tuberculosis. 25 : 54 · 2
25 : 56 · 1
25 : 53
26 : 55 · 1

The upper lobe (right lung) is small, feels very dense, and is almost replaced by black, fibrous tissue (least marked in the lower portion), in which are a few small, thick, caseous areas, and one or two small cavities containing thick pus, and having smooth, firm walls. The lobe is dry, and in its upper three-quarters devoid of air. The middle lobe is almost completely and uniformly consolidated, of a very pale, yellow colour; the cut surface having the smoothness of a pale grey hepatization. The lower lobe is air-containing, and of a pale red colour, and exuded much froth. In the apex of the lower lobe is an area of small, discrete, firm, grey tubercles. The pleura was the seat of universal fibrous adhesions, with some thickening and opacity. The lung weighed 43 ozs. The left lung weighed 38 ozs. It was large and œdematous. Apart from a small area of pneumonic consolidation (resembling that met with in the middle lobe of the right lung) in the anterior border of the upper lobe, the lung was normal.

Microscopic examination showed that the lung was the seat of a very cellular exudate filling the alveoli and obscuring the structure. Old standing foci of tuberculosis were present.

The patient was a male, aged 32, who died from chronic parenchymatous nephritis and uræmia. Pneumonia supervened 4 days before death.

M.N. 3674. D.B. 4747. P.M.M. 778. Nov. 22, 1905.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

This left lung weighed 53 ozs. The upper lobe, as a whole, is much enlarged; it felt very firm and heavy, and was non-crepitant throughout, but the lower part along the interlobar sulcus were soft and had the semi-cystic consistency of purulent infiltration. On section the cut surface was very moist and exuded a large amount of non-frothy, stringy, puriform fluid. The whole surface has a patchy, greyish pink appearance, except in the region of the apex which is somewhat redder. The lower lobe showed some degree of dark purple congestion and œdema, otherwise it was normal. The pleura was markedly thickened and opaque throughout, and both layers were united by universal, fine, fibrinous adhesions. The right lung was normal.

The patient was a male, aged 50, who was found dead in the street.

M.N. 3694. D.B. 4820. P.M.M. 801. Feb. 5, 1906. Dr. Harris.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The lung (left) weighed 48 ozs. Its lower lobe is much enlarged, as a whole, and is completely and evenly consolidated, inelastic and airless. The cut surface has a general pinkish-grey colour throughout, but the tint varies much according to the stage of the disease. It exuded a little thick, non-frothy fluid, which resembled blood-stained pus. The upper lobe is of a deep purple colour, and it exuded much froth and blood on pressure, otherwise it is normal. In the lower part of the upper lobe the pleura is very much congested, and over this area was a layer of fibrin, portions of which remain.

Microscopically, the consolidated tissue shows a great variety in the nature of the exudate in the alveoli corresponding to the naked-eye mottling above described on the cut surface.

The patient was a man, aged 42, who received an injury to his chest, resulting in fracture of the sternum and two of the upper left costal cartilages. The same evening his temperature rose and pneumonia developed. He died six days after the injury. (See liver, M.N. 3695—36 : 42·1.)

M.N. 3697. D.B. 4805. P.M.M. 797. January 23, 1906. Dr. Harris.

LUNG: Croupous Pneumonia. 25 : 54 · 2
26 : 54 · 2

The upper and middle lobes are of normal size. They are spongy, and from the deep red, cut surface there exuded much serous, frothy fluid. The lower lobe is much enlarged. It felt firm and inelastic, and absolutely non-crepitant. On section the surface is seen to be of an uneven, greyish-red colour, though distinctly redder anteriorly. It was slightly moist and exuded a small amount of somewhat thick, non-frothy fluid. This lobe is completely consolidated, and the cut surface has a very finely granular appearance. There were also numerous large plugs of fibrin in the small bronchi. The lung weighed 59 ozs. There is an irregularly scattered fibrinous deposit on the pleura covering the lower lobe. The other lung was normal. Microscopic examination shows the pneumonia to have a typical appearance.

The patient was a male, aged 39. The onset and course of the pneumonia were typical except that no bronchial breathing was heard. The patient died on the seventh day of his illness.

M.N. 3757. D.B. 4834. P.M.M. 804. Feb. 12, 1906. Dr. Harris.

LUNG: Broncho-Pneumonia. 25 : 52 · 1

The bulk of the lung (left) is the seat of grey areas of lobular consolidation. These projected on the cut surface, and had a finely granular appearance. The air-vessels in the neighbourhood of the consolidation are distended (emphysematous). Over the pleura is a thick layer of yellow fibrin. The right lung was normal, but there was a thick fibrinous deposit over the right pleura.

The patient was a child aged 4. Death was due to suppurative lepto-meningitis. (See brain, M.N. 3756—72 : 54·4.)

LUNG: TUBERCULOSIS.

M.N. 1145. Dr. Leech.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 44 · 2
25 : 44 · 6
26 : 55 · 1
26 : 54 · 2

The specimen shows the whole of one lung, from which a wedge-shaped segment has been removed. The pleura is thickened, especially towards the base of the lung. The thickening consists of two parts; in the first place there is an increase of the fibrous tissue of the pleura, and more recently over the surface of the thickened pleura there has been deposited a still thicker layer of yellowish fibrin, laid down in strands which form a close network. Over the base of the lung this deposit is fully a quarter of an inch thick. At one point in the membrane there is a round opening about the size of a threepenny piece, where there has been a communication between the small cavity and the pleural space. There is a large cavity with ragged walls situated at the apex. Into this open several smaller cavities. The tissue round has undergone fibrosis, especially round the bronchi which open into the cavity. In the lumen of the bronchi there is a good deal of inspissated secretion, and in the parenchyma between them there are areas of caseation. About the middle of the lung there are larger caseous areas, and in one or two of them softening and discharge of the caseous material has taken place. At the base of the lung a few similar areas are observed, but no softening. Near the hilum of the lung is a small bronchial gland, which shows a distinct involvement by tubercle in its peripheral zone.

M.N. 1167. D.B. 951. Nov. 23, 1889. Dr. Harris.

LUNG: Tuberculosis.

25 : 56 · 1
43 · 4 : 56 · 1
43 · 4 : 44 · 2
25 : 55 · 3
24 : 27 · 1

The parenchyma is of a pale greyish colour, and presents an uniform surface. At one or two points at the apex small cavities have been formed about the size of a pea. Throughout the lung tissue consolidation has taken place, and round the bronchioles in many places a definite ring of necrosing tuberculous tissue

can be observed. The glands of the root of the lung are of enormous size, and there has been in them extensive tuberculous infiltration. There is no fibrosis in this lung to lead to distortion. Some of the smaller bronchi have been dilated, and show an irregular lumen. The process has been an acute one in a young subject, and the very extensive invasion of the lymph glands suggests that in them we have the primary seat of infection. At the back of the specimen the cut surface of the lymph glands shows softening and breaking down of the caseous matter, and this was probably the origin of the infection which recently attacked the bronchi. The pleura does not show miliary tubercles, but there is a considerable amount of recent fibrinous deposit. (See lung M.N. 1166—25 : 52·1.)

M.N. 1168. D.B. 1014. Feb. 9, 1890.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 53
25 : 55 · 4
25 : 55 · 3
43 · 4 : 56 · 1
24 · 1 : 53
26 : 55 · 1

This specimen shows the whole of one lung with the parenchyma exposed by a section from apex to base. The whole pleura is very much thickened, but especially over the apex, where the layer of new fibrinous tissue is fully $\frac{1}{4}$ inch thick, and at one point a centre of caseation has been formed, and this has subsequently softened and escaped, leaving a small cavity where walls are covered with caseous matter. The apex of the lung is riddled with cavities, irregular in shape and surrounded by lung tissue in which the fibrous element has been very much increased in quantity, but in which consolidation has not taken place to any marked extent, and the slaty-grey colour of the lung has been preserved. Below this, however, and more or less over the whole of the rest of the lung, the colour is pale yellow, and this is due to extensive consolidation which has become caseous. At points here and there, through the whole of the tissue so altered, breaking-down and cavity-formation has begun to take place. This change is due to an acute exacerbation of the disease which, up to a certain point, had pursued a chronic course, and given rise to the changes in the apex. To be associated also with the chronic stage of the disease in this case are the immense new growth of connective tissue at the root of the lung, surrounding and compressing the bronchi, vessels and glands. The bronchial

walls here are greatly thickened by peribronchial inflammation of a tuberculous character, and in the newly-formed white tissue, yellow, rounded areas of caseation can be detected. The glands are embedded in the margin of this area, and have the appearance of having been flattened and compressed by the fibrous contraction. In the bronchi, which have been cut longitudinally, the mucous membrane has a markedly rugose appearance.

M.N. 1169.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 27 · 3

Over the whole of the cut surface of this piece of lung are to be found small, rounded groups of tuberculous foci; each focus standing out a little from the surface and showing a whitish centre. The lung tissue between these groups is crepitant and comparatively free from tuberculous infiltration. The distribution of the tuberculous nodules is determined in this case by the bronchi. There is a certain amount of emphysema.

M.N. 1170.

LUNG: Tuberculosis. 25 : 56 . 1
25 : 55 . 3
25 : 55 . 4
26 : 55 : 1

This specimen consists of a slice of one lung. The pleura is thickened throughout, but more markedly at certain points. Towards the lower border of the upper lobe the process of excavation (vomica formation) had involved the pleura, and an irregular wound of the pleura has resulted from this. On the cut surface two forms of the tuberculous process are manifested: (1) that of the upper part of the upper lobe, and the chief area of the lower lobe. Here the lung is slatey-grey in colour, and shows numerous irregular cavities of small size, surrounded by consolidated and partially caseated areas of inflammatory exudation. (2) across the lower border of the upper lobe, and in a smaller area of the lower lobe, there is a band or zone of uniform yellow, caseous consolidation. This is due to tuberculous caseous pneumonia, in which the areas of consolidation are continuous with each other, and convert the lung into a uniform yellow, airless, bloodless, mass of necrosed tissue. This form of consolidation occurs in very rapid cases of phthisis (phthisis florida). There is marked fibrous thickening, and adhesion of the interlobar pleura.

M.N. 1171. D.B. 1017. Feb. 15, 1890.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 55 · 3
25 : 44 · 2
43 · 4 : 56 · 1

The lung has been divided from apex to base. A moderate degree of pleuritic thickening is seen on the surface, especially in the upper lobe. There is over the whole surface of the pleura a deposit of fibrin, the free ends of the fibrils of which project into the fluid. The surface of the section shows that the lung has been consolidated throughout by a rapidly advancing tuberculous pneumonia. About 2 inches from the apex there is a cavity of the form and size of a walnut. The walls of this cavity are composed of condensed, necrotic-looking tissue, comparable to the lining of an abscess cavity. Above and below this cavity, in a line along the outer border of the lung, there are very small cavities of irregular shape, situated in completely consolidated tissue, and giving the lung a worm-eaten appearance. In the whole of the rest of the lung consolidation has taken place, but the process has not generally reached the stage of excavation. The bronchial glands show very clear evidence of tuberculous infiltration. They are markedly enlarged, and the normally black pigmented tissue has been replaced by yellow, caseous masses, either scattered or confluent. The capsule of the invaded glands is markedly thickened.

M.N. 1172. D.B. 548.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 55 · 3
25 : 44 · 2
43 · 4 : 56 · 1

The pleura is irregularly thickened. Over those areas of the lung which are in a state of most advanced phthisis, the pleura is very much thickened. Over the other areas the thickening is almost absent. The case is unusual, on account of the restricted areas in which this pleurisy has occurred. The apex especially has a distorted appearance from old cicatricial contraction On section, the various stages in the progress of phthisis are seen. Advanced vomica formation is found at the apex, at the lower border of the upper lobe, at the upper borders, and at the outer and posterior margin of the lower lobe. All these cavities are of the same type. The walls are very irregular and consist of masses of tissue which have survived the process of disintegration.

Around them all there is evidence of chronic fibrous growth, leading to contraction and distortion. The surroundings of the cavities differ somewhat. That of the base of the upper lobe is surrounded by lung tissue which is not extensively infiltrated with tubercles. This is no doubt due to the fact that it is at the lowest level of the lobe. In contrast to this, it will be observed that round the other cavities and especially beneath them, there is extensive consolidation of the lung tissue from caseating broncho-pneumonia. The consolidation there shows a number of small, round, yellow areas, which are in general continuous with each other. This process has taken place very extensively in the lower lobe. The whole lobe is affected, and the areas of caseation in many instances show the commencement of central softening. At the very base of the lung there is still some parenchyma which has not been completely consolidated. The bronchial glands are invaded by miliary tubercles, but they are not increased in size. This is partly due to the fact that they are surrounded by a layer of contracting fibrous tissue.

M.N. 1173. D.B. 266. Jan. 25, 1886. Dr. Leech.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2
25 : 55 · 3

The pleural surface shows one or two patches of thickening, but generally it is not thickened. There is marked dilatation of the pleural lymphatics of the lower lobe, and there is some recent fibrinous deposit especially seen in the inter-lobar sulcus. Shining through the pleura, especially that of the upper lobe, are to be seen numerous small tubercle nodules. On section, a huge, irregular cavity is seen to occupy the apex of the upper lobe. The wall of this cavity is formed by an irregular meshwork of strands, rounded, smooth and yellow. The two layers of pleura over this cavity were adherent, but they were so thin that they were torn in removing the specimen from the thorax. The lung tissue under this cavity shows marked fibrosis, and in the midst of the fibrous tissue areas of caseation may be observed. At the apex of the middle lobe on the left side of the specimen, there is a clearly marked area of tuberculous consolidation, somewhat wedge-shaped in form. At the root of the middle lobe, there is a cavity of considerable size, and surrounding this cavity, but especially beneath it, there is a distinct area of consolidation. The glands at the root of the lung show generally tuberculous inflammation, but in some this is more marked than in others. There is a large development of fibrous tissue surrounding the bronchial glands.

M.N. 1174.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2
25 : 55 · 3
26 : 53
15 : 2 : 34

The pleura is generally thickened, and in some areas, especially over the middle lobe, markedly so. Each lobe, especially the upper one, is riddled with cavities, and these cavities are in diameter about $\frac{1}{2}$—1 inch. The intervening lung tissue shows an extremely marked development of tuberculous foci, and is almost completely consolidated. Some crepitant lung tissue remains in the lower lobe. A very large bronchial gland in the middle of the cut surface, and a smaller one near it, are studded over with minute tubercles. A branch of the pulmonary vein in the lower lobe shows a firm white thrombus.

M.N. 1177. D.B. 1289. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2

The specimen shows a section of lung which has been injected with carmine, and this gives the parenchyma an appearance of red consolidation. At one or two places this injection has failed to enter the lung tissue, and in place of it, we have a consolidation, yellowish, dark grey in colour, commencing at several points to break down, representing tuberculous infiltration of the lung through the avenue of the bronchi. The pleura over these areas shows signs of inflammatory thickening.

M.N. 1180.

LUNG: Tuberculosis; Bronchiectasis. 25 : 56 · 1
24 : 27 · 1
25 : 53
26 : 53

This portion of the lung shows very much thickened pleura over the surface. The lung tissue has been injected and the parenchyma has on that account a dark brown colour. The cut surface shows in the centre of the specimen, a series of irregularly-shaped cavities with fairly smooth walls, preserving the colour of the injected parenchyma.

M.N. 1181.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 55 · 3
25 : 44 · 2
26 : 55 · 1

The pleura exhibits very dense thickening over its upper part, and thickening to a less degree towards the lower part. On section, the upper part of the lung shows a series of irregular excavations. The walls of the cavities are ragged and composed of yellowish tissue. In the lower lobe the excavation has reached a less degree of development but is taking place in the walls of the bronchi. The intervening lung tissue shows an immense number of whitish areas due to the development of caseous tubercle, and this has led to a fairly complete consolidation of the lung tissue.

M.N. 1182.

LUNG: Tuberculosis. 25 : 56 · 1
26 : 54 · 2
26 : 55 · 1

The specimen shows the left lung. In the pleura are signs of both old-standing and recent pleurisy. In some parts there is fibrous thickening, and over a considerable part of the whole surface there is a layer of recently deposited fibrin. The whole of the upper lobe, and the upper part of the lower lobe, have been destroyed, and there remains a large cavity with very rough walls. The roughness is due to the projection from the wall into the cavity of portions of the connective tissue, and septa, in which run blood-vessels and bronchi. The lung tissue which remains in the lower lobe shows extensive caseating consolidation, and here and there are areas where cavities have commenced to form at this level also.

M.N. 1183.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2
25 : 55 · 3
26 : 55 · 1

The specimen shows that the whole lung is in a state of chronic tuberculosis. The visceral pleura has been thickened by the formation of a dense layer of white fibrous tissue, especially over the posterior margin of the lung.

On examining the cut surface, it is found that the upper two-thirds of the lung substance has been replaced by a cavity imperfectly divided by trabeculæ. In the line where the section has been made, there is over the greater part of this cavity only a very thin layer of lung tissue underneath the thickened pleura. The inner surface of this cavity is fairly smooth, and, while portions of the lung tissue are yellow in colour, there is little evidence of caseation. In the lung tissue at the base there are several patches of caseation, some of which have softened, indicating the presence there of tuberculous broncho-pneumonia. In the bronchial glands exposed at the back of the specimen, a tuberculous deposit is to be observed, and at one or two points, where the pleura has been cut away, caseous tubercles are to be found. A section of part of the upper lobe which is displayed at the back of the specimen shows complete freedom from tuberculosis.

M.N. 1184. D.B. 452. Feb., 1887. Dr. Leech.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 55 · 3
26 : 55 · 1

In the pleura are signs of acute and chronic pleurisy over the whole surface. On the cut surface, it is found that the upper lobe has been almost completely destroyed, the tissue of the organ having been replaced by large rounded cavities. The walls of these cavities have a smooth surface, and therefore are due to chronic phthisis. There is a great amount of growth of the fibrous tissue in such parts of the parenchyma of the upper lobe as remain. The interlobar pleura, and especially the pleura and connective tissue of the hilum, have been the seats of chronic overgrowth of fibrous tissue. The bronchi and lymphatic glands are more or less embedded in this new tissue. In the lower lobe consolidation has taken place through a large part of the lung. The exudate has caseated, and here and there has commenced to break down. Even in the wedge-shaped portion of lung tissue which is freest from the disease, areas of consolidation occur at intervals. The bronchial glands are invaded by the tubercles, and show numerous small caseous centres and tuberculous inflammation in their substance.

The patient suffered from intestinal tuberculosis.

M.N. 1185.

LUNG; Tuberculosis. 25 : 56 · 1
25 : 44 : 2
25 : 55 · 3
26 : 55 · 1

This specimen shows the upper part of one lung. The pleura over nearly the whole of the specimen displays marked fibrous thickening due to chronic pleurisy. The apex of the lung has been totally destroyed, and in place of the parenchyma there is a large, fairly smooth-walled cavity divided into loculi by septa with rounded edges. The walls of the cavities are composed of condensed white tissue, and to the surface of this a few fragments of lung tissue adhere. The lower part of the specimen shows collapsed lung tissue, in which are numbers of caseous tuberculous foci.

M.N. 1186.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 55 · 3
25 : 42 · 9
25 : 53
43 · 4 : 44 · 2
26 : 55 · 1

The specimen shows the upper segment of one lung. The pleura, especially over the apex, is very markedly thickened by fibrous tissue over-growth. At one point on the surface of the section, the thickness can be seen to be about $\frac{1}{4}$ inch. The apex and neighbouring part of the lung are replaced by a large, smooth-walled cavity. The greater part of the wall of this cavity is formed of thickened pleura, to which a few fragments of lung tissue still adhere. Where lung tissue still remains, it shows greatly thickened fibrous septa. Some of the smaller bronchi are much dilated, and in the alveolar tissue a few nodules of calcified matter are seen. There is a very marked increase of septal connective tissue through the whole remaining lung; but there is no sign of recent activity of the tuberculous virus. The bronchial glands are swollen, but there are only a few small, caseous areas in their substance.

M.N. 1188. D.B. 1146.

LUNG: Tuberculosis; Aneurysm of Pulmonary Artery. 25 : 56 · 1
25 : 55 · 3
14 · 2 : 27 · 1 (21 · 7)

The speeimen shows a portion of one lung. The pleura is very slightly thiekened, and there is evidence of emphysema in the sub-pleural parenchyma. On seetion, the lung shows in its substance the presenee of large eavities with rough walls. On one of the vessels whieh projeet from the wall of the larger cavity, an aneurysm about the size of a marble has formed, and subsequently ruptured, eausing fatal hæmorrhage. Around, and espeeially under the eavities, there are areas in the parenehyma of the lung in whieh pneumonie eonsolidation has taken plaee.

M.N. 1189. D.B. 1467. Mareh, 1892. Dr. Maguire.

LUNG: Tuberculosis; Aneurysm of Pulmonary Artery. 25 : 56 · 1
25 : 55 · 3
25 : 53
14 · 2 : 27 · 1 (21 · 7)
26 : 55 · 1

The pleura is very greatly thickened. On the eut surface several well-defined tuberculous cavities are seen, and in the lower one is a rounded aneurysm, which has formed in the weakened wall of a vessel running across the eavity. From the bursting of this aneursym death took place. The lung tissue whieh remains is in a state of fibroid induration, and there is marked thiekening of the bronchial walls. The ease has been one of subaeute phthisis, and there are near the lower border of the speeimen some areas of reeent consolidation of a tubereulous nature.

M.N. 1190. D.B. 714.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 55 · 3
26 : 55 · 1

The specimen is the upper portion of the lung. The pleura over the apex is greatly thickened with fibrous tissue, but there is no general thiekening. On seetion it is found that the tissue of the apex is replaeed by a eavity, the size of a small apple. The walls of this eavity are well-defined and fairly smooth on the inner surfaee. The activity of the tubereulous process has subsided; but the adhesion of the pleura to the parietes had prevented the falling in of the lung. Such a case is an illustration of healed phthisis. There are several small nodules of calcified matter in the lung tissue.

M.N. 1191. Dr. Harris.

LUNG; Tuberculosis. 25 : 56 · 1
26 : 53
26 : 42 · 8

The specimen shows a small portion of one lung. The surface exposed here is that of the pleura covering a tuberculous focus. The serous membrane covering the lung is deeply pigmented and thickened. The contraction of the fibrous tissue has led to marked unevenness of the lung surface. In the area involved two or three white nodules of necrosed tissue may be observed.

M.N. 1193. D.B. 766. Jan., 1889. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 53
25 : 55 · 3
25 : 44 · 2

The specimen shows a small portion of one lung. The tissue is deeply pigmented, and at the middle of the cut surface there is a wedge-shaped area of fibrous tissue, the site of an old tuberculous focus which has become organised. The caseous matter in the tissue originally involved has been almost completely replaced by the scar tissue; but here and there, throughout the area, small nodules of caseous matter remain as whitish masses. Outside the wedge-shaped mass there are some more recent tuberculous changes. A small cavity, originating in a dilated bronchiole, is seen, with a definite outline formed of yellow material, and the parenchyma round it is the site of tuberculous consolidation, which has taken place in rounded areas. The contraction of the old standing focus has led to puckering and thickening of the pleura. This specimen shows within small compass nearly all the structural changes which occur in cases of pulmonary phthisis.

M.N. 1195A. D.B. 643. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2
25 : 55 · 3
26 : 53

The specimen is one half of a lung. The pleura is very much thickened, obscuring the division of the lung into lobes. On section the cut surface of two lobes is seen. In the upper part of the upper lobe a series of very irregular cavities has been formed, from the walls of which hang masses of partially

detached tissue. In the upper part of the lower lobe there is an area of dense, consolidation, and further small cavities are observed. These are of the same general character as those described, but in the case of one of them, the size of a large bean, the walls are smooth. The lung tissue round these cavities, both in the upper and lower lobes, shows rounded areas of tuberculous pneumonia in the stage of caseation. At a distance from the cavities discrete tubercles may be observed over practically the whole lung, but these are small in size. Over the diaphragmatic pleura there is a thick fibrinous exudate, from recent pleurisy.

M.N. 1195B. D.B. 643. Dr. HARRIS.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 53
25 : 42 · 9

The specimen shows a small portion of lung tissue. The whole tissue is slatey-grey in colour, and in its centre there is the rounded area of an old tuberculous focus. In this area the greater part of the tissue consists of greyish-white fibrous tissue, and at one side a mass about the size of a pea remains, where the original necrotic mass has not been transformed into scar tissue but has become the site of calcareous infiltration.

M.N. 1196. D.B. 614. Dec., 1887. Dr. LEECH.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 53
25 : 42 · 9
25 : 42 · 8
25 : 54 · 2
25 : 27 · 3
26 : 55 · 1

The specimen shows a small portion of the apex of one lung. The case from which this was taken was one of acute croupous pneumonia, and the lung parenchyma here exhibits the presence of grey consolidation. The tissue generally is deeply pigmented with carbon deposit. About the centre of the block there is an old focus of tuberculosis, composed for the most part of fibrous tissue (slatey induration) in which abundant pigment has been deposited. In

the midst of this tissue there are remains of the necrotic mass originally formed, in the shape of a small, white nodule of calcareous matter. The fibrous tissue in contracting has caused marked puckering of the pleura, and there is great thickening of the pleural membrane over the area. One portion of lung near this, about the size of a large pea, has undergone emphysematous dilatation. At another part of the block there is a similar small area of necrosis which has become calcified.

M.N. 1197. D.B. 502. May, 1887. Dr. Harris.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 42 · 8
25 : 44 · 2
25 : 53
25 : 54 · 2
26 : 55 · 1

The specimen shows a small portion of lung tissue from the apex. The remainder of this lung was described as a specimen of lobar pneumonia. The pleura of this portion of the lung is very markedly thickened by a layer of white, fibrous tissue, which has sent irregular processes into the substance of the organ. The parenchyma is largely replaced by deeply pigmented cicatricial tissue, and embedded in the tissue is an old tuberculous focus consisting of caseated and calcified necrotic matter. The lower part of the specimen shows a band of grey hepatization due to the acute croupous pneumonia from which the patient died. (See lung M.N. 1162—25 : 54·2.)

M.N. 1198. D.B. 572. Nov., 1887. Dr. Harris.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 42 · 9
25 : 53

The specimen shows a small portion of lung in which there is an old-standing focus of tuberculous disease. The pleura over the tuberculous area is much thickened, and the contraction of the fibrous tissue in the lung, which has formed during the process of healing, has led to marked depression in the pleural covering. At the bottom of this depression, and embedded in a mass of pigmented cicatricial tissue, there is a small area of necrosis, the material of which has undergone calcification. The calcareous nodule is surrounded by a well-defined capsule.

M.N. 1199.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2
25 : 53
25 : 54 · 3

The pleura is thickened over the tuberculous area, and the fibrous contraction, which has taken place during the healing process, has caused an irregular depression. The tuberculous focus consists of a caseous mass surrounded by a well-defined capsule of fibrous tissue, in which a large amount of black pigment has been deposited. In addition to the large central mass there are numbers of smaller outlying masses with caseous centres and fibrous capsules. The parenchyma of the lung is in a state of grey consolidation. It shows a somewhat granular surface with numerous pin-point hollows.

M.N. 1200. D.B. 615. Dec., 1889. Dr. Harris.

LUNG: Healed Phthisis. 25 : 56 · 1
25 : 53
25 : 42 · 9

In each of the two portions of lung tissue is seen an area of dark grey fibrous tissue, enclosing white calcareous matter. In the lower fragment the surface of the lung is distinctly puckered.

M.N. 1201. D.B. 281. Mar. 24, 1886. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 53
25 : 44 · 2
25 : 42 · 9

The lung tissue is of a dark, slatey-grey colour, displaying a large amount of old cicatricial tissue. In the midst of each mass of this tissue there is a rounded area of caseous necrosis, closely surrounded by a capsule of firm fibrous tissue, in which a large amount of black pigment has been deposited. The central parts of the necrotic areas show calcification.

M.N. 1594. D.B. 1936. Dr. Harris.

LUNG: Tuberculosis.

25 : 56 · 1
26 : 55 · 1
25 · 55 · 3
24 · 1 : 55 · 1

This specimen shows the left lung. The pleura is thickened throughout and forms a tense, leathery, firm capsule to the whole lung. The parenchyma of the lung shows widespread cavitation—the cavities being of an irregular shape. The surrounding lung tissue is consolidated by tuberculous inflammation, and has a yellow caseous appearance. The bronchi show marked evidence of peribronchial inflammation of a tuberculous caseous character. At the base of the lung is seen a cavity in which a small aneurysm has formed on one of the blood-vessels.

Microscopic examination shows the typical structure of caseating tuberculosis. (See larynx, M.N. 1594B—22 : 56·1.)

M.N. 1604. D.B. 2208. P.M.M. 1893, No. 165. Nov. 7, 1893. Dr. Dreschfeld.

LUNG: Tuberculosis.

25 : 56 · 1
26 : 55 · 1
25 : 55 · 3
25 : 44 · 2

The pleural surface shows evidence of old fibrous thickening in the region of the apex of the upper lobe, with some distortion of the outline. Scattered over the rest of the lung are a few patches of fibrinous exudation. The cut surface of the lung reveals a very large cavity, occupying the bulk of the upper half of the upper lobe. The cavity is divided into several compartments by trabeculæ of condensed lung tissue and blood-vessels. The walls of the cavity are somewhat irregular but are not shreddy; they feel firm, and are pale yellow in colour. Very little lung tissue separates the cavity from the pleura. Another cavity of irregular outline, smaller than the above, but having much the same general appearance, is seen in the lower part of the lower lobe near the inter-lobar sulcus. The intervening lung tissue is dense and shows widespread consolidation, which to a large extent is of a caseous nature, especially along the lower margin of the upper lobe. Hardly any normal lung tissue remains. The bronchi show slight fibrous thickening round their outer coat. The lower lobe shows very extensive caseation in its upper part—in one or two places the

caseous areas are softening. The base of this lobe is spongy, and the middle of the lobe shows numerous miliary tubercles. The bronchial glands seen on the cut surface are somewhat enlarged and apparently the seat of caseation.

The patient was a female aged 17. At the autopsy there were tuberculous lesions in both lungs, trachea, larynx, cervical, mediastinal, and mesenteric glands, kidney and spleen.

M.N. 1605. D.B. 1195. P.M.M. 1889, No. 286. Feb. 11, 1891. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 1

The specimen shows the right lung. In the upper lobe and part of the middle lobe are tuberculous vomicæ in an advanced stage. In the lower part of the lung an extensive crop of miliary tubercles is seen. The lung in this part was very congested. The case was of interest from the fact that the patient was treated by the injection of Koch's tuberculin. The larynx was ulcerated and there were ulcers in the small intestine.

The patient was a male aged 51.

M.N. 2834A. D.B. 4091. P.M.M. 419. May 27, 1903. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 2
25 : 44 · 2
25 : 32
25 : 27 · 3

The left lung is shown. It is large and heavy, weighing 35 ozs. It did not collapse on opening the chest. The surface was pale pink and nodular. The upper lobe crepitated, but the lower lobe was non-crepitant. On section innumerable small, firm, grey and yellow nodules were found scattered through out. They have frequently coalesced, and in one or two places the areas have reached the size of a cherry. The intervening lung tissue, especially at the base, is congested. There are irregular areas of consolidation, in the midst of which the caseous patches are situated, and between these are patches of somewhat emphysematous lung parenchyma. Some of the smaller bronchi were surrounded by a ring of caseous material, and the general distribution of the tuberculous lesions was that of the peri-bronchial type. There was no pleurisy. At the apex there is a small, smooth-walled cavity. The microscope showed typical tubercle nodules. (For clinical notes see larynx, M.N. 2836—22 : 56·1; kidney, M.N. 2835—51 : 56·1.)

M.N. 2834B. D.B. 4091. P.M.M. 419. May 27, 1903. Dr. HARRIS.

LUNG: Tuberculosis.

25 : 56·2
25 : 44·2
25 : 32
25 : 27·3

The specimen shows a vertical section of the right lung. The lung is studded throughout with numerous small tubercles and a few larger ones; one of these, close to the bronchial glands, being about the size of a walnut. One or two show signs of breaking down. The distribution of the tuberculous areas is not uniform throughout the lung, but occurs over a roughly wedged-shaped area, at the base of the upper lobe, in the middle of the middle lobe, and at the posterior part of the lower lobe. The tubercles are much more numerous and larger in the zones specified than in the other areas of the lung. The bronchial glands are infected with tubercle. The tissue where tubercle is relatively absent is congested. The pleura is inflamed only to a very slight extent.

The patient suffered from genito-urinary tuberculosis. The spread of the tubercle in the lungs has taken place here by way of the bronchi, but the foci are small in size and separated from one another. There is some compensatory emphysema in the upper lobe. (See larynx, M.N. 2836—22 : 56·1, and kidney, M.N. 2835—51 : 56·1.)

M.N. 2916. D.B. 4050. Mar. 9, 1903.

LUNG: Tuberculosis.

25 : 56 2
25 : 55·3
43·4 : 56·2

The specimen consists of tracheal and bronchial glands, and left lung in 3 parts. The lymphatic glands lying along the trachea, and at the root of the lung, are large and caseous. The pleura is somewhat thickened, and there is also over it a thick covering of fibrinous deposit. The parenchyma of the lung is riddled with cavities irregularly shaped, connected with the bronchi and lined by a whitish layer of tuberculous granulation tissue. The parenchyma remaining is consolidated to a large extent, and studded with minute miliary tubercles. The onset of tuberculosis followed an attack of measles.

The patient was a child. (See intestine M.N. 2780—35·2 : 56·1.)

M.N. 2946. D.B. 4331. P.M.M. 696. Feb. 21, 1905. Dr. Graham Steell.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 44 · 2
25 : 55 · 3
14 · 2 : 34
26 : 55 · 1
26 : 54 · 2
24 : 52 · 1

The left lung weighs 41 ozs. and is enlarged throughout. The apex is puckered and was lacerated, during its removal from the thorax, owing to the firm adhesions. The surface is roughened from the remains of the adhesions, except in the postero-inferior part, where it is covered by a cheesy-looking layer lining a loculated empyema. There is marked carbonaceous pigmentation. Throughout the lung are felt firm, round nodules, none of which project on the surface. Many are single and of the size of a cherry-stone, but many have coalesced into larger masses. The lung is heavy. It is of a dull, brownish colour. Crepitation is present only over the upper half of the lower lobe, and here it is very deficient. A large, irregular cavity occupies the bulk of the upper lobe—it is of the size of a hen's egg—and the walls are dark grey, irregularly nodular and firm. A ridge of lung tissue divides it into two portions, but no trabeculæ cross it. In its walls are seen a few small patches of calcification. In places the cavity has reached the surface. Nowhere are its walls more than $\frac{1}{2}$ in. thick, and the lung adjacent is firmly consolidated. In the upper part of the lower lobe is another smaller cavity. At the base of the lower lobe is a large, rosette-shaped cavity, with moderately smooth walls, lined by inspissated pus and containing about 6 drachms of thick, yellow pus, which had no foul odour. Their walls feel firm, but are thin, and are apparently lined by tuberculous granulation tissue. A large blood-vessel is seen passing along the wall of the cavity; the lumen is occupied by a white thrombus. This cavity is separated from the pleural cavity by a thin layer of pleura. Over this, tuberculous pleurisy had occurred, and about an ounce of turbid fluid had collected. The bulk of the lung tissue not replaced by cavities shows the following characters: it was moist, and exuded much frothy, serous fluid, and is of a brownish-red colour. In the lung parenchyma there appears to be a thin network of grey, fibrous tissue. Numerous fairly large nodules of greyish-yellow colour are found, and throughout are large numbers of small, grey tubercles. There is also some development of emphysema in the lung parenchyma. (See small intestine, M.N. 3316—35·2 : 56·1 and caecum, M.N. 2947—35·3 : 56·1.)

M.N. 3344. D.B. 4358. P.M.M. 699. Mar. 16, 1905. Dr. Wilkinson.

LUNG: Tuberculosis. 25 : 56 · 1

The specimen consists of the larger part of the left lung. The consolidation affected the anterior third of the organ, but the whole of the lung was involved. It was studded with tubercles, chiefly arranged in groups. A large proportion of them are yellow, and in a few places they had coalesced to form small cavities. The anterior portion is grey and anæmic, but the posterior and less affected part is congested. The right lung was similar.

The patient was a female child aged 12 months. Tuberculosis was found in the mesenteric glands, liver, spleen, and pia-arachnoid, but not in the bowel. (See meninges, M.N. 3372—72 : 56·2.)

M.N. 3369. D.B. 4269. P.M.M. 666. Dec. 16, 1904. Dr. Harris.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2
25 : 42 · 9

The specimen consists in a section from each lung. The right lung shows the most extensive infiltration with caseating areas. In the upper lobe of this lung there is very little parenchyma unaffected. There is some degree of emphysema, especially on the outer aspect, and the small miliary cavities seen are partly due to this and partly to the softening of caseous centres. In the lower lobe the same changes are found, but here there is a considerable amount of lung tissue unaffected. The left lung shows an old calcified tuberculous focus in the apex, but the most marked and recent tuberculous change is seen at the upper part of the lower lobe. The remainder of this lobe shows discrete areas of consolidation with markedly congested intervening lung tissue.

The patient, a female aged 39, gave a tuberculous family history. Her own illness commenced 11 months before death in the form of cystitis. Six months later she had cough and expectoration, and 3 weeks before death diarrhœa set in. Tubercle bacilli were found in the urine. (See bladder, M.N. 3368—53 : 56·1.)

M.N. 3401. D.B. 3166. Dr. Harris.

LUNG: Tuberculosis.

25 : 56 · 1
25 : 55 · 3
25 : 53
26 : 55 · 1
43 · 4 : 44 · 2

The lung is found to be occupied by numerous, fairly regular cavities of various sizes, the largest being in the upper lobe. Their walls are fairly smooth, and are covered with tuberculous granulation tissue. The little lung-tissue that remains shows marked fibrous changes. At one part a caseous enlargement of one of the bronchial glands is seen as a rounded mass of bright yellow colour. The pleura throughout shows very marked fibrous thickening.

M.N. 3439. D.B. 3705. P.M.M. 1898, No. 15. Dec. 19, 1898. Dr. Harris.

LUNG: Tuberculosis.

25 : 56 · 2
26 : 54 · 2
43 · 4 : 56 · 2

The left lung weighed $6\frac{3}{4}$ ozs., and was collapsed owing to the left pleural cavity being filled with turbid, serous fluid. The outer surface shows the remains of a thin, fibrinous deposit. On section the upper lobe is seen to be studded with miliary tubercles. The upper part of the lower lobe is consolidated, and shows large, irregular, firm, caseous nodules, evidently of old formation. The base of the lung shows miliary tubercles. The bronchial glands show evidence of tuberculous involvement. The tuberculosis of the apex and upper lobe is much more advanced than that of the lower lobe.

The patient was a male aged 12. At the autopsy there was evidence of tuberculosis of lungs, pleuræ, peritoneum, intestine, spleen, kidneys, liver and retro-peritoneal lymph glands.

M.N. 3462. D.B. 4320. Feb. 14, 1905. Mr. Ray.

LUNG, HEART, INTESTINE and KIDNEY: Miliary Tuberculosis.

25 : 56 · 2
25 : 52 · 1 (44 · 2)
12 : 56 · 2
35 · 2 : 56 · 2
43 · 4 : 56 · 2
51 : 56 · 2

These specimens were taken from a child, aged 3 years, who died from tuberculous meningitis. Miliary tubercles were present in the meninges and spleen, as well as in the organs represented in these specimens. The bronchial

glands are enlarged, pigmented, and caseous. Stretching across the upper lobe of the lung (right), there is a whitish area of caseating pneumonia. Around this the pulmonary tissue presents a cloudy and consolidated appearance, but it was not caseated. The area surrounding the upper bronchial gland shows similar consolidation. The miliary tubercles are scattered throughout the lung, and are irregular in size and arrangement. The larger ones are distinctly caseous. The bronchi are filled with exudation. There is no pleurisy. There was ulceration of the intestinal mucosa, and the peritoneum and mesentery are studded with miliary nodules. The mesenteric glands are enlarged and caseous. Miliary nodules are also present under the capsule, and in the substance of the kidney. The organ is congested. A group of tubercles is visible also at the apex of the heart, in the area supplied by the posterior coronary artery. (See stomach, M.N. 3463—34 : 56·1 and lung, M.N. 3472—25 : 56·2.)

M.N. 3471. D.B. 4272. Dec. 20, 1904. Dr. Hutton.

LUNG and DIAPHRAGM: Miliary Tuberculosis. 25 : 56 . 2
26 (83 · 3) : 56 · 2

The bronchial glands are enlarged. The lung contains only a few scattered tubercles. The edges of all the lobes show slight emphysema. On the pleural surface of the diaphragm are numbers of miliary tubercles. Tubercles were present in large numbers in the spleen, the adjacent peritoneum, the liver, and the meninges.

The patient was a boy, aged 6 years. Death occurred from tuberculous meningitis after three weeks' illness only.

M.N. 3472. D.B. 4320. Feb. 14, 1905. Mr. Ray.

LUNG: Miliary Tuberculosis. 25 : 56 · 2

The bronchial glands are not greatly enlarged, and they contain but few areas of caseation. In this instance the right lung and right group of bronchial glands were the primary foci of the disease. The lung is studded with innumerable miliary tubercles, the majority of which are in an early stage. At

the apices and bases the tubercles have formed confluent patches, thus giving rise to more extensive areas of consolidation. The relation of the bronchi to the tuberculous foci is seen clearly in this specimen. The bronchi never form the centre of a caseous area. In a few instances, tubercles are located near, but quite apart from, the bronchioles. (See stomach M.N. 3463—34 : 56·1, and lung M.N. 3462—25 : 56·2.)

M.N. 3476. D.B. 4336. Feb. 27, 1905. Dr. Ashby.

LUNG: Miliary Tuberculosis. 25 ; 56 · 2
43 · 4 : 56 · 1

The bronchial glands are enlarged, pigmented, and caseous. The entire lung is studded with miliary tubercles which vary in size and arrangement. A few are practically discrete, but the majority occur in groups. Around each group there is a greyish area of consolidated tissue. In some places, the lung is uniformly consolidated.

The patient was a rhachitic child, aged 7 years. Miliary tubercles were also present in the liver, spleen, kidney, pleura, peritoneum and mediastinal glands. Death took place from tuberculous meningitis. (See spleen M.N. 3495—45 : 56·2, and liver M.N. 3487—36 : 56·2.)

M.N. 3477. D.B. 4276. Jan. 9, 1905. Dr. Ashby.

LUNGS and LIVER; Tuberculosis, Caseating Pneumonia. 25 : 56 · 1
25 : 52 · 1 (44 · 2)
26 : 54 · 2
36 : 56 · 2

Both lungs show extensive tuberculous lesions. These occur chiefly around the bronchi, although here and there are a few distinctly miliary tubercles which stand out prominently. In the right lung the tuberculous areas are confluent, and there is uniform consolidation except over a small area in the upper lobe. The middle lobe is entirely consolidated, the outer half being distended with caseo-fibrinous exudation.

Microscopically, the tuberculous lesions were seen to be very cellular and

surrounded by excessive cell infiltration, and fibrinous exudation. In the middle lobe, the fibrin was present in the form of broad zones which surrounded caseous areas, in the centre of which a bronchus could often be made out. The edges of the lung show numerous areas of compensatory emphysema. Localized areas of the pleura exhibit chronic inflammatory changes. The liver presents a dull and cloudy surface, suggestive of cloudy swelling, and early amyloid disease. A few miliary tubercles are visible. The bronchial glands were much enlarged and caseous. Similar conditions were present in the mediastinal glands, particularly those lying immediately under the sternum, and in the glands lying upon the lateral aspects of the bodies of the dorsal vertebræ. The intestines, the mesenteric, and retroperitoneal glands were not tuberculous.

The patient was a boy, aged $1\frac{1}{2}$ years.

M.N. 3509. D.B. 4691. P.M.M. 755. Oct. 3, 1905. Dr. Judson Bury.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2

The lung (right) is of normal size and shape, and it weighed 31 ozs. Its surface is even, of a deep purplish-red colour, and it is studded with a very large number of small, yellowish, sub-pleural nodes of firm consistence, and of all sizes up to that of a cherry. Apart from these the lung was crepitant. On section, the bulk of the lung is seen to be the seat of areas of caseation, for the most part arranged in racemose groups. At the apex of the upper lobe, there was a fairly smooth-walled cavity of small size, which contained thin puriform fluid. Another similar cavity (seen in the specimen) lies near it on the axillary border. The caseous nodules are most abundant in the upper and middle lobes, especially at the apex. They are fewest at the base of the lower lobe. They feel firm but friable, and project on the cut surface. The rest of the lung is spongy, and shows well-marked, deep-purple congestion. It was slightly œdematous. The bronchi are much injected. The left lung weighed only 15 ozs. It had similar characters to the right lung, but the nodules were much fewer, and for the most part of smaller size, and they were especially distributed in the anterior portion of the lung.

The patient was a female, aged 33. She was in hospital for only 5 days. (See Fallopian tube cyst, M.N. 3511—64 : 67·1.)

M.N. 3522A. D.B. 4708. Oct. 19, 1905. Mr. TELFORD.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 44 · 2

The lung is distended, and almost uniformly consolidated. At the periphery numerous broncho-pneumonic patches are visible, and many of these have caseous centres. Large areas of caseous necrosis occur in the lower half of the specimen. Some are dull grey in colour, others are of a creamy-white appearance. Near the apex there is a bronchus cut obliquely. Its walls are thickened, and it contains a plug of dark-coloured exudation; immediately below and to the left of it there is a small cavity with smooth walls due to acute distension. Below this again is a cavity, whose walls are lined with caseating débris. About the middle of the left half of the specimen there is another cavity; it is surrounded by caseous areas, and its walls are slightly rough. The bronchi throughout show peri-bronchial thickening and caseation. The majority of them are plugged with exudation. The areas of pigmentation are well marked. The glands show a certain amount of caseation.

The patient was a boy, aged 5 years, with a two years' history of tuberculosis of the hip-joint. Amyloid changes were present in the liver, spleen and kidney. (See liver M.N. 3522B—36 : 42·5.)

M.N. 3624. D.B. 4632. P.M.M. 724. June 29, 1905. Dr. JUDSON BURY.

LUNG: Tuberculosis in a case of Spleno-Medullary Leukæmia. 25 : 56 · 1
25 : 81 · 4

The lung (weight, 33 oz.) was of normal size except the lower lobe, which was smaller owing to collapse from the presence of serous exudate in the pleural cavity. Its surface is smooth and of a dark-grey colour. The lung felt firm, and was markedly airless and deficient in elasticity. Throughout all the lobes are seen a large number of firm, rounded and irregular nodules, of various sizes up to that of a cherry-stone, and some of the larger ones project on the surface. They are most abundant in the lower lobe, and they are white, well-defined and friable, but present no special grouping. A section has been made in the upper lobe to show the distribution of these nodules in the substance of the lung. They are rounded and caseous.

The microscopic examination shows that the white areas are due to

inflammatory consolidation. The area involved is in a state of necrosis, and displays tubercle bacilli, but no characteristic tuberculous structure. There is a large amount of œdema and desquamation of alveolar cells. The alveolar walls are thickened and infiltrated with round cells. In addition to this are large areas in which round cells have been deposited. These cells have a large round, somewhat pale nucleus, and granular protoplasm. (See spleen M.N. 3623—45 : 81·4, and peritoneum M.N. 3625—38·1 : 56·2.)

M.N. 3629. D.B. 3931. Dr. Judson Bury.

LUNG: Tuberculosis. 25 : 56 · 1
25 : 55 · 3
26 : 55 · 1

The specimen consists in the left lung. It weighed 41 oz. The pleura is thickened, congested and clearly marked by the ribs. The two layers were adherent throughout. At various points the pleura shows the presence of miliary nodules of tubercle. The lung has been divided by a vertical incision from apex to base. The upper lobe shows on its inner aspect a series of cavities and an area of caseous tissue breaking down irregularly. The rest of the lung shows an unusually uniform and widespread infiltration of the parenchyma with tuberculous nodules. These are so numerous and so closely packed together that they are practically confluent (caseating bronchopneumonia).

The patient was a male aged 16. There was no tuberculosis elsewhere in the body.

M.N. 3688A & B. D.B. 4798. P.M.M. 795. Jan. 20, 1906. Dr. Harris.

LUNGS: Tuberculosis. 25 : 56 · 1
25 : 55 · 3
25 : 44 · 2
25 : 53
25 : 27 · 1

Sections of both lungs have been preserved in this case. The right lung is of normal size and shape, and weighed 30 oz. Its surface is smooth, of a deep red colour. At the apex is a deep linear puckering, on each side of which is a projection of emphysematous lung tissue. The anterior and inferior margins

of the lung are thicker than normal, but are spongy. The lung was the seat of widespread consolidation, and this occupies the whole of the upper lobe, except for a mere strip along its inferior border. The rest of the lung has a nodular feeling, the nodules varying in size up to that of a cherry. None of them were visible from the surface. The intervening lung tissue is spongy. The upper lobe contains much dark-grey fibrous tissue in the form of a fine network, among whose meshes are numerous minute yellow tubercles, fairly evenly distributed. Near the apex is a small, smooth-walled cavity with caseous lining, and also one or two small areas of distinct caseation, resulting from the coalescence of yellow tubercles. The middle and lower lobes are the seat of numerous aggregations of small yellow tubercles, leading to the formation of patches of consolidation which have a dark-grey colour and project on the cut surface. The intervening lung tissue, of a deep red colour, is spongy, and exuded a little frothy fluid.

The left lung weighed 28 oz. Externally its appearance is similar to the right lung, but the consolidated area is larger, affecting the entire upper lobe and the anterior half and apex of the lower lobe. In this lobe the solid area is widest above, but tapers as the inferior border is reached, leaving the postero-inferior half free from consolidation; the line of demarcation between these two areas being an almost straight line running diagonally across the lobe. In this consolidated area are innumerable yellow tubercles, as on the right side; but here and there is evidence of a more extensive coalescence. In this lung there are several cavities in the upper lobe of the size of a cherry, and they are lined by a thin caseating layer. Near the apex of the lower lobe is an irregular cavity apparently formed by the union of a group of smaller cavities, the whole having the capacity of a walnut. In the consolidated tissue are many areas of soft yellow caseous matter, some of them being comparatively large.

The patient was a male, aged 44. There was a history of cough with much sputum for 20 years, but never any hæmoptysis. Physical signs of pulmonary tuberculosis were well marked, and tubercle bacilli were found in the sputum. There was much emaciation. At the autopsy were found a few early tuberculous deposits in some of the Peyer's patches, also a few sparsely scattered tuberculous deposits on the peritoneal aspect of the ileum. The omentum was shrunken and firm and of a dirty yellow colour. There was a large quantity of serous fluid in the peritoneum, and in it floated a few flakes of fibrin.

M.N. 3689 A & B. D.B. 4748 P.M.M. 779. Nov. 23, 1905. Dr. WILKINSON.

LUNGS: Tuberculosis in a case of Diabetes Mellitus. 25 : 56 · 1 (: 84)
25 : 55 · 3
25 : 44 · 2

Sections of both lungs have been preserved in this case. The right lung is somewhat enlarged. The upper lobe felt soft, reminding one of a flaccid cyst, and its surface is smooth, except for the remains of moderately firm adhesions at the apex. The whole lung was heavy (it weighed 40 oz.) and inelastic. Here and there were found areas in which crepitation could be detected. On section fully three-quarters of the upper lobe was found to be occupied by a large, very irregular cavity, with nodular walls of a deep purplish-red colour, and of moderately firm consistence, smeared over with thin puriform fluid. Trabeculæ of lung tissue cross the cavity as prominent ridges, giving the whole a markedly multilocular appearance. The walls are mostly made up of a thin layer of firm, dark lung tissue, but nowhere does the cavity appear to have reached the pleura. The cavity was full of dark brownish-grey, thick, grumous, turbid fluid having a somewhat sweet odour. The remainder of the upper lobe, like the middle and lower lobes, is the seat of an almost complete though nodular consolidation. The nodules are evenly distributed, and most of them are of the size of cherry-stones, and firm but friable. They have a roughened granular surface, and are of a pinkish-yellow colour; they project on the cut surface, and are separated by bright red lung tissue which in many places contains air. There are no signs of cavitation, but there are here and there slight signs of caseous change. The entire cut surface was moist and the bronchial mucous membrane is injected.

The left lung weighed 39 oz. It very closely resembles the other; but the following important differences are to be noted:—(1) The cavity in the upper lobe occupies almost the entire extent of that lobe, and its contents were more like pus; (2) the nodules in the lower lobe show more widespread evidence of caseation, and near the base a few of these caseous areas have softened, forming small unilocular cavities with shaggy yellow walls and puriform contents.

The patient was an adult male, who had suffered from diabetes mellitus for some years. At the autopsy, in addition to the pulmonary tuberculosis, one small group of tubercles was seen in the wall of the jejunum, but there were no other signs of tuberculosis. The heart was in a state of brown atrophy. (See heart M.N. 3690—12 : 41.)

LUNG: SPECIFIC INFLAMMATIONS, EXCLUDING TUBERCULOSIS.

M.N. 1552. Aug., 1888. Dr. Dreschfeld.

LUNG: Pneumonia and Pleurisy after Diphtheria. 25 : 56 · 8
26 : 55 · 1

The specimen shows general grey consolidation of the lungs, and the bronchi show a surface roughened from diphtheritic inflammation. The pleura is much thickened.

Microscopically the walls of the alveoli are very markedly thickened from cellular infiltration; in some instances the alveolus seems to be filled with a mass of cells. The cells are of two types—the large mononuclear alveolar cells and the small polymorphonuclear leucocytes. There is practically no trace of fibrinous exudate in the alveoli or in the small bronchi. This inflammation affects the lung in patches, some areas of the lung tissue being free from it.

M. 3490. D.B. 4687. July 30, 1905. Dr. Ashby.

LUNG: Actinomycosis. 25 : 56 · 4

The pleural surface of the outer and lower portion of the lower lobe is covered by a thick, shreddy, yellow deposit. This deposit extends to the diaphragmatic portion of the pleura. The section of lung suspended at the lower edge of the specimen shows extensive consolidation, an increased quantity of fibrous tissue, and the presence of several granulomatous areas. The nodules contain a pigmented centre, and a peripheral zone of white, dense tissue. The pleura is covered with an irregular, yellow and granular exudate.

Microscopically the interstitial tissue is greatly increased. Typical actinomycotic nodules are present. Around a central mass of mycelia and clubs there

is a zone of small-celled infiltration, and around the latter the fibrous tissue is increased. The adjacent alveoli show catarrhal changes. Subacute bronchitis is also present.

The patient was a child, aged 7 years. The child was ill for twelve months, and had night sweats, emaciation and pain in the left side. A large swelling appeared below the inferior angle of the left scapula, and later the superjacent skin became riddled with sinuses, which discharged a thick, greenish pus. In the pus were a number of small white bodies, about the size of a millet-seed, which on microscopical examination were found to consist of actinomyces. The child gradually wasted. At the autopsy the lower lobe of the left lung was firmly adherent to the granulomatous mass on the left thoracic wall, the general pleural cavity being cut off completely by the adhesions. (See spleen M.N. 3491—45 : 56·4.)

LUNG: MALIGNANT TUMOURS.

M.N. 1204. D.B. 668. P.M.M. 1886, No. 164. Mar. 8, 1888.

Dr. Graham Steell.

LUNG: Carcinoma. 25 : 66 · 3
25 : 44 · 6

The specimen shows one-half of the right lung. The site of the tumour is in the upper and middle lobes. It has become softened to a large extent, and in its centre there appears a very ragged cavity. The cavity was filled with greenish-yellow matter with a foul odour. The texture of the tumour was that of a soft cellular tissue.

Microscopic examination showed the tumour to be a soft cancer composed of large spherical cells with comparatively pale staining nuclei. There is no alveolar arrangement of the cells, and there is very little matrix. Large areas of this section are in a state of necrosis.

The patient was a male, aged 45.

M.N. 1209.

LUNG: Lympho-Sarcoma, Tuberculosis. 25 : 65 · 9
25 : 56 · 1
25 : 55 · 3
26 : 55 · 1

The specimen consists of a portion of a lung. The greater part of the lung tissue has been replaced by tumour growth which appears as irregular yellowish, friable masses. There are also present a number of smooth-walled vomicæ. Very little spongy lung tissue remains. There is evidence of old-standing pleurisy.

Microscopically the lung shows numerous foci of the typical structure of chronic fibroid tubercle. The tumour tissue is of the round-celled sarcomatous type.

M.N. 1212.

LUNG: Lympho-Sarcoma. 25:65·9

The specimen shows a portion of tumour and lung tissue. At one side of the cut surface there is a portion of lung tissue left, in which the grey pigmented parenchyma is extensively infiltrated by the invasion of the tumour growth, and this portion has become almost completely solidified. The openings of some of the smaller bronchi can be seen in the midst of the consolidated tissue. There is a ring of solid white tissue round the bronchial wall, and from this processes pass out to the surrounding lung. Apart from this area the rest of the specimen is composed of tissue which has the appearance of a white fibrous matrix, enclosing in a meshwork rounded and irregularly-shaped areas of cellular tissue.

The microscopic structure of the tumour is that of a lympho-sarcoma.

M.N. 1213. Dr. Wilkinson.

LUNG: Large Round-Celled Sarcoma. 25:65·1

The specimen shows a portion of the right lung, which is studded with large rounded yellow tumour masses situated at the bifurcation of the trachea and throughout the substance of the lung. A section of these nodules shows that they are composed of soft friable tissue.

A microscopic section taken from the largest nodule shows the tumour cells arranged in alveoli, which are separated from each other by thick bands of fibrous tissue in which the blood-vessels run. The arrangement in some respects resembles that of the alveolar system of the lungs; but as there is no lining by alveolar cells, and there is little, if any, deposit of carbon pigment, the septa may be regarded as a part of the tumour growth. The septa consist of round cells of various sizes, some of them very large, and each provided with a nucleus richly supplied with chromatin.

M.N. 1214.

LUNG: Secondary Melanotic Sarcoma. 25:65·5

The pleura is slightly thickened throughout, and over the surface are to be found rounded whitish nodules of various sizes up to that of a cherry. The cut surface shows some of these nodules in section, and in the uniform white tissue of which they are composed is seen a diffused deposit of melanin pigment. The greater number of the tumours have formed in the subpleural part of the lobes. The bronchial glands are only moderately enlarged, the tumour growth not having advanced in them so far as in some of the areas of parenchyma involved.

The record of the case has been lost. These tumours are of the secondary variety, and show the small development of pigment which is sometimes seen in the metastatic growths in these cases.

M.N. 1215. Dr. Harris.

LUNG: Secondary Mixed-Celled Sarcoma. 25:65·3

The specimen shows a small portion of the lung studded with nodules of secondary sarcomatous growth. They are numerous and small, and occur in the substance as well as in the pleura.

The microscopic section shows that the growth is a mixed-celled sarcoma. The alveolar walls of the parenchyma near the growth show marked fibrous thickening.

M.N. 1217.

LUNG: Melanotic Sarcoma. 25:65·5

The specimen shows a portion of the lung studded with secondary melanotic sarcomata. The tumours are very numerous, small and deeply pigmented. Some of those in the pleura have a polypoid form.

The history of the case is lost.

The diagnosis is confirmed by microscopic examination, the cells being of a round-celled type. (See M.N. 1218 below.)

M.N. 1218.

LUNG: Melanotic Sarcoma. 25 : 65 · 5

The specimen is similar to M.N. 1217 (above)

M.N. 2822. D.B. 4068. P.M.M. 405. May 11, 1903. Dr. Graham Steell.

LUNG: Secondary Carcinoma. 25 : 66 · 3

The lung was enlarged, and weighed 27 oz., but the general contour was normal. The surface was smooth, glistening and pigmented, but showed a large number of yellowish-white circular nodules. They were chiefly in the peripheral part of the lung, and they were pinkish-yellow on section. Numerous small hæmorrhages were found in the neighbourhood of some of the nodules.

The patient was a male, aged 40. (See liver M.N. 2823—36 : 66·3.)

M.N. 2852. D.B. 4124. P.M.M. 448. July 24, 1903. Dr. Harris.

LUNG: Primary Carcinoma. 25 : 66 · 3
25 : 33

The left lung weighed 28 oz. The pleural surface was fairly smooth and darkly pigmented. The lung was very firm from a diffused growth, and there was general absence of crepitation. In the lower half of the lobe, there is mottling on the outer surface due to small white nodules in the pleura, which have in some cases coalesced. They are most abundant on the inferior surface. On section the lung was found dry. A round firm nodule, the size of a walnut, is found situated near the apex, composed of new-growth, and is markedly blood-stained. Around it the lung is in a state of pneumonic consolidation. The bronchial walls are very much thickened at the hilum of the lung.

A microscopic section shows the structure to be a carcinoma, which has apparently arisen from the alveolar epithelium.

The patient was a female, aged 53.

M.N. 3370. D.B. 4302. P.M.M. 683. Jan. 26, 1905. Dr. Judson Bury.

LUNG: Columnar Carcinoma. 25 : 66 · 4
25 : 33

The lung has the normal size and shape, and the surface is smooth and bright red. It shows slight pigmentation, is spongy throughout, and weighs 19 oz. On section the cut surface has the bright red of active congestion. The lung tissue was of normal consistence, and it exuded a little frothy fluid. Here and there were evidences of lobular collapse, and in a few places there appears to have been some extravasation of blood into the lobules. An incision has been made into the substance of the upper lobe posteriorly, and has revealed a small rounded firm nodule of secondary growth lying some distance beneath the surface.

Microscopically the tumour is composed of columnar cells arranged in elongated tubular acini. (See brain M.N. 3506—73 : 65·1, and liver M.N. 3314—36 : 64·7.)

M.N. 3503. D.B. 4645. P.M.S. 457. July 11, 1905. Mr. Thorburn.

LUNG: Sarcoma. 25 : 65 · 1

The left lung weighed $11\frac{1}{2}$ oz., and the right $9\frac{1}{2}$ oz. They showed very similar characters. In size and shape they were normal. The surface is studded with a large number of firm rounded white nodules of all sizes up to that of a plum-stone. The rest of the lung is normal. The nodules are most abundant in the lower lobe.

Microscopical examination of the lung shows areas of increased fibrous tissue containing rounded nodules of sarcomatous growth of the small round-celled variety.

The patient was a female, aged 19. The primary growth was a sarcoma arising on the periosteum of the first three dorsal vertebræ. It had extended directly to the apex of the right lung. A few enlarged lymph glands were found in the cervical region, but there were no metastatic deposits elsewhere

M.N. 3660. D.B. 4713. P.M.M.763. Oct. 23, 1905. Dr. Harris.

LUNG: Squamous Carcinoma. 25:66·1

The lung (left) is uniformly enlarged. It felt very heavy, and weighed 54 oz. The pleura over it is much thickened and opaque; the layers were firmly adherent throughout except for a small area at the extreme base, where there was a cavity full of thick yellow pus. The lung is completely inelastic. On section it cut firmly. In the hinder half of the lower lobe is a large cavity of irregular contour, about the size of a goose's egg. Its walls are made up of white carcinomatous-looking tissue, and are studded all over with small nodular projections. The walls felt firm, but friable. The contents had the appearance of thin, dirty-looking pus containing flakes of solid tissue, but the pus was not foul. This cavity lies in the centre of the lobe, and almost the whole of the lung tissue between this cavity and the hinder, mediastinal and axillary aspects of the lobe is infiltrated and replaced by a mass of new growth which has a somewhat translucent surface and is of a pearly fibrous appearance. In its substance can be seen remains of pigmented lung. Where the growth has reached the pleural surface it projects to about the depth of an inch, and here the visceral layer of the pleura cannot be traced. The rest of the lung is very moist and of a pale dirty yellowish-green colour. Very little lung tissue remains, the whole being replaced by small smooth-walled cavities full of pus and of fairly uniform size. The bronchial glands at the hilum of the lung are pigmented, but otherwise normal. The other lung was normal.

Microscopic examination shows that the tumour is a squamous epithelioma.

The patient was a male, aged 24, who was admitted to M.R.I. complaining of pain in the chest and dyspnœa. He had not been well for a period of ten months, and during this period he occasionally spat blood and that in increasing quantity. He lost weight rapidly, and died from exhaustion.

LUNG: CYSTS.

M.N. 2857A. D.B. 4143. P.M.S. 343. Oct. 7, 1903. Mr. Southam.

LUNG: Hydatid Cyst. 25:67·4

The right lung shows two cysts in the upper lobe. The upper and larger is only the hollowed-out space occupied by the parasite. In the lower is a thin-walled capsule, in which are small cysts easily detached. The lung tissue in the neighbourhood of the cysts is normal. The left lung and the liver were extensively affected. (See liver M.N. 2858—36:67·4.)

The patient was a female, aged 17.

M.N. 2857B. D.B. 4143. P.M.S. 343. Oct. 7, 1903. Mr. Southam,

LUNG: Hydatid Cyst. 25:67·4

Left lung from the same case as the above specimen, showing on the anterior border of the upper lobe a hydatid cyst. The lung is emphysematous.

PLEURA: RETROGRESSIVE DISORDERS.

M.N. 1142.

PLEURA: Calcification and Cyst. 26 : 42 · 9
26 : 67

This specimen shows portions of four ribs, on the inner side of which is a large membranous cyst, of a rounded, flattened form. In the walls of this, over a considerable part of them, a deposition of calcareous matter has taken place, giving rise to a series of pointed protuberances of calcareous matter, on the surface in contact with the pleura of the lung.

M.N. 1143.

PLEURA: Calcification. 26 : 42 · 9

This specimen shows a quadrangular piece of pleural membrane, in the substance of which there has been an extensive deposit of calcareous salts, probably in the form of bony tissue. The calcification commenced at different centres, and there are irregular defects in the continuity of the plates.

M.N. 1527. D.B. 1462. P.M.M. 1889, No. 21. March 29, 1892.
Dr. Dreschfeld.

PLEURA: Calcification. 26 : 42 · 9

Marked thickening and calcification were seen in defined areas in the visceral pleura. The specimen consists in a portion of the lung showing one of the fibro-calcareous plates.

The patient, a man, aged 49, gave a history of winter cough for 18 years. He was admitted complaining of dyspnœa and œdema.

PLEURA: INFLAMMATION.

M.N. 1141.

PLEURA: Adhesions. 26 : 55 · 7

This specimen shows a portion of the lung, the pleura of which is adherent to the parietal pleura by delicate membranous bands. The adhesions are extremely loose, admitting a separation of the lung from the rib to the distance of about 1 inch. The lung tissue is somewhat pigmented, but shows no further distinct pathological change.

M.N. 1144. Oct. 27, 1885.

LUNG: Chronic Pleurisy and Collapse. 26 : 55 · 1
25 : 26

This specimen shows on the outer surface the pleura very much thickened. On section there is displayed a very considerable amount of fibrous thickening around the vessels and bronchi at the hilum. The bronchial glands are intensely pigmented, but not markedly enlarged, and are fairly regular in outline. The parenchyma of the lung is of a very distinct slaty colour, and it is partially collapsed.

M.N. 1163.

LUNG: Chronic Pleurisy, Fibrosis of Lung. 26 : 55 · 1
25 : 53
25 : 27 · 3

The pleura is enormously thickened by a growth of fibrous tissue. In place of the ordinary thin serous covering of the lung there is a layer of white fibrous tissue about $\frac{1}{4}$ of an inch in thickness. From the inner surface of this bands of fibrous tissue pass into the lung, leading to a fibrosis of the parenchyma. The lung is not consolidated, and in some areas there is a general slight dilatation of the alveoli (compensatory), but this does not extend throughout the organ. There is a good deal of pigment in the lung tissue.

PLEURA: MALIGNANT TUMOURS.

M.N. 875.

PLEURA: Lympho-Sarcoma. 26 : 65 · 9

This specimen shows a portion of the thoracic wall. The pleural surface is thickly studded with rounded flat tumour masses. The surface of these masses is uneven, but is covered with unbroken pleural membrane. The tumour growth is confined to the pleural membrane, and has not invaded the other tissues of the thoracic wall.

Microscopic investigation showed that the tumour has the structure of a lympho-sarcoma. (See pleura M.N. 876, below, from the same case.)

M.N. 876.

PLEURA: Lympho-Sarcoma. 26 : 65 · 9

This specimen shows a portion of a single rib from the same case as M.N. 875. Here the tumour mass has been cut, and the surface of the section shows the uniform opaque structure of a cellular sarcoma. (See pleura M.N. 875 above.)

M.N. 1634. D.B. 1306. P.M.M. 1891, No. 16. Aug. 10, 1891. Dr. Harris.

PLEURA: Endothelioma. 26 : 66 · 5

The specimen consists in a section of the right lung. This lung weighed 86 oz. The lung is seen to be surrounded by a thick, fairly uniform layer of dense tumour growth which has obliterated the pleural cavity except at one point where there are the remains of a putrid encysted empyema cavity. The growth had also encroached upon the lung, having passed along the interlobar septa. It is well defined from the lung parenchyma which is still crepitant throughout.

Microscopically the growth shows an alveolar structure. The alveoli are occupied by cylindrical cells, which in many cases appear to line the cavity, and in other cases to fill the cavity. The stroma is of variable amount, but consists of dense fibrous tissue. The left lung was hyperæmic, but otherwise normal. A few adhesions were present in the left pleura. The pericardium showed fibrinous inflammation. There was no malignant growth in the body apart from that in the right pleura.

The patient was a woman, aged 58. There was a history of 14 months' progressive weakness and pain. (See *Journal of Pathology*, 1894, page 174.)

M.N. 3304. D.B. 4140. P.M.M. 465. Sept. 18, 1903. Dr. Graham Steell.

LUNG, PLEURA AND LEFT HALF OF DIAPHRAGM: Endothelioma of Pleura. 26:66·5 25:26·1

The specimen is inverted in order to show the full extent to which the diaphragm has been affected. The pleura covering the diaphragm is irregularly thickened and firm throughout. Its surface is roughened by a nodular flat growth, which in places was $\frac{1}{2}$ inch thick. It was white, homogenous and firm. The visceral layer shows similar but less marked changes. The entire pleura was in this condition. The lung is small and collapsed. The pleural cavity contained about 4 pints of sero-fibrinous exudation of a brownish colour. There were no crepitations in the lung, which on section had a dark-grey airless appearance. The interlobar pleura was $\frac{1}{3}$ inch thick. From this a small nodule, the size of a cherry, projected into the substance of the lower lobe. Similar conditions were found in the other pleura and peritoneum.

The patient was a male, aged 39.

PLEURA: CYSTS.

M.N. 2868. D.B. 4168. P.M.S. 346. Nov. 13, 1902.

LUNG: Serous Cyst. 26 : 67 · 1
41 : 67 · 1

A serous cyst, about the size of a hen's egg, and very tense, was situated in the anterior end of the inferior border of the lower lobe. It contained 55 c.c. of fluid, slightly turbid, of the colour of brown gum, alkaline in reaction. It contained a few cells, but a considerable quantity of albumin. The wall of the cyst is lined by flattened endothelium.

The patient was a man, aged 39, who died from an accident.

DIGESTIVE SYSTEM.

MOUTH: CONGENITAL MALFORMATIONS.

M.N. 1778. D.B. 157. Nov. 13, 1885.

MOUTH: Hare-Lip. 31·1:12·3

The specimen shows the soft tissues surrounding the mouth. In the upper left side of the middle line is seen the congenital fissure of hare-lip.

MOUTH: MECHANICAL LESIONS AND RETROGRESSIVE DISORDERS.

M.N. 848.

TOOTH OF A LARGE ANIMAL. 31·5:28

A bullet is found embedded in the substance of the tooth.

M.N. 2302.

SALIVARY CALCULUS. 31·3:43

M.N. 3610. D.B. 1861. Dr. Reynolds.

TONGUE: Hemiatrophy. 31·2:41

The tongue is flattened as a whole, and the median raphé is seen to be considerably nearer the right border than in the normal condition. This was taken from a case of disseminated sclerosis.

MOUTH: INFLAMMATIONS.

M.N. 3279. D.B. 3601. P.M.M. 1897, No. 12. Nov. 29, 1897. Dr. Harris.

MOUTH and LARYNX: Gangrenous Stomatitis. 31 : 55 · 3
31 : 44 · 5

The specimen consists of the lower jaw, floor of mouth, pharynx and larynx. The soft tissues on both aspects of the right ramus of the jaw show extensive disintegration and discoloration from necrosis. The coronoid process of the jaw is denuded of periosteum. The lymph glands in the region of the angle of the jaw are enlarged.

The patient was a male, aged 22, who died from sarcoma affecting the retro-peritoneal and cervical glands. There were secondary deposits in the liver and spleen.

TEETH: HYPERTROPHY.

M.N. 438.

TEETH (INCISORS), RAT'S SKULL: Hypertrophy. 31·5:62

The right upper incisor has grown in a curve backwards, and the point penetrates the roof of the mouth. The left upper incisor is hypertrophied, but is broken. The right lower incisor describes a circle over the zygoma. The left lower incisor, which is broken off, forms a spiral of $1\frac{1}{2}$ turns.

M.N. 439. H. Harrison, Esq.

TEETH (INCISORS), SKULL OF HARE: Hypertrophy. 31·5:62

The four incisors are semi-circular in shape from want of wear due to displacement.

MOUTH: BENIGN GROWTHS.

M.N. 1788. D.B. 579. Nov., 1887. Dr. Ross.

TONGUE: Angeioma. 31·2:64·3

The specimen shows a very much enlarged tongue, with a rough surface due to the hypertrophy of the superficial epithelium. It has a dark colour. The organ is uniformly enlarged.

Microscopic section shows that the enlargement is due to the presence of a nævoid overgrowth of the capillary blood-vessels. (See head M.N. 1642—02:64·3.)

M.N. 3007. Mr. Whitehead.

TONGUE: Papilloma. 31·2:64·6

The specimen consists of the anterior two-thirds of the left half of the tongue. It is almost completely involved in a papillomatous growth, the surface of which is warty and fissured, and considerably raised above the surrounding mucous membrane. A V-shaped portion has been removed from the tongue posteriorly, showing the marked overgrowth of the papillæ and epithelium. It has not, however, penetrated into the muscular substance of the tongue.

Microscopic examination showed that the growth was papillomatous, there being no evidence of malignancy.

The patient was a man, aged 49 years. There was a history of syphilis 20 years previously. Two or three years later chronic superficial glossitis followed. The tumour had been noticed four or five years, and growth had been more rapid for the two years before operation.

M.N. 3110. Mr. Montgomery.

PAROTID GLAND: Fibro-Chondroma. 31·3:63·3 (63·2)

The specimen is a mixed tumour of the parotid gland. The section shows that it is partly fibrous and partly cartilaginous in structure. Some hæmorrhage has taken place into the lower part, discolouring it. Some parotid gland substance has been removed with the tumour to which it is adherent, and can be seen on the posterior aspect of the specimen.

The patient was a female, aged 48 years. The growth had been present for 18 years. It was removed by operation on March 31, 1902.

M.N. 3238. D.B. 4402. May, 1905. Mr. Southam.

PAROTID GLAND: Fibro-Myxoma. 31·3:63·2 (63·5)

The specimen consists in a well-defined rounded tumour of a fibro-myxomatous character, showing in its substance a number of small areas of hæmorrhage.

Microscopically the tumour shows great proliferation of endothelial cells which forms columns and irregular masses resembling cancerous alveoli. Some areas of the tumour are definitely myxomatous.

The patient was a boy, aged 12 years. The swelling was situated just behind the angle of the jaw, and had been slowly enlarging for five years. The growth was encapsulated in the parotid gland.

M.N. 3538. Mr. Southam.

PAROTID GLAND: Myxo-Fibroma. 31·3:63·2 (63·5)

The specimen consists of a rounded mass, the size of a goose's egg. It has a well-defined outline. On the cut surface it is seen to be composed of a uniform opaque tissue.

Microscopical examination shows that the tumour is a myxo-fibroma.

The patient was a female, aged 37 years, who has suffered from tumour for 8 years. It grew slowly at first, and more rapidly later. There was no facial paralysis. The growth was removed Jan. 20, 1902.

M.N. 3743. D.B. 4849. Feb. 22, 1906. · Mr. Wright.

TONGUE: Angeioma. 31·2:64·3

The anterior portion of tongue is occupied by a cavernous angeioma, which projects slightly above the normal level, and has a obscured dark colour. The cut surface shows the tumour extending deeply into the muscular tissue of the tongue.

On microscopic examination the tumour is found to be composed of blood-filled spaces lined by endothelium and separated from each other by somewhat thick fibrous septa.

The patient was a man, aged 21 years. The tumour had been gradually increasing in size for the previous 17 years, and was noticed to swell considerably after meals. A wedge-shaped portion of the tongue, including the tumour, was removed February 21, 1906.

MOUTH: MALIGNANT TUMOURS.

M.N. 1779. D.B. 291B. April 6, 1886. Mr. SOUTHAM.

LIP: Epithelioma 31·1:66·1

The tumour occupies the junction of skin and mucous membrane, and has caused a distinct increase in the thickness of the lip. Ulceration has not commenced, but the surface is covered by pigmented crusts.

M.N. 1780. D.B. 291A. April 6, 1886. Mr. SOUTHAM.

LOWER LIP: Epithelioma. 31·1:66·1

The tumour occupies the junction of skin and mucous membrane as a somewhat flattened, circular, well-defined growth, and it has caused a great thickening. It is sharply marked off from the surrounding tissue, and has a slight tendency to fungate. The greater part of the surface is covered by a darkly pigmented crust.

M.N. 1781. April 7, 1887. Mr. JONES.

LOWER LIP: Epithelioma. 31·1:66·1

The tumour is situated at the junction of skin and mucous membrane. An elliptical ulcer has formed, spreading along the free border of the lip. The skin and mucous membrane are both somewhat undermined, and along the middle line of the floor of the ulcer a ridge of tumour-tissue projects.

M.N. 1782. April 8, 1885.

LOWER LIP: Epithelioma. 31·1:66·1

A round fungating mass with an ulcerated surface occupies the skin of the lower lip. The upper border reaches as far as the junction of skin and mucous membrane.

M.N. 1783. Mr. Jones.

LOWER LIP: Epithelioma. 31 · 1 : 66 · 1

A large mass, with a widely and deeply ulcerated surface, is situated on the lower lip. The base of the ulcer is very irregular, and much shredded, in contrast with the base of the ulcer in Specimen No. 1784.

M.N. 1784. D.B. 205. Jan. 22, 1886. Mr. Whitehead.

LOWER LIP: Epithelioma 31 · 1 : 66 · 1

The substance of the lower lip is infiltrated with tumour growth which has caused an immense thickening. Anteriorly the tumour has ulcerated through the skin, and the ulcer is surrounded by a thickened ridge of tumour growth, parts of which are blood-stained. The base of the ulcer is composed of a multitude of epithelial processes with scaly surfaces projecting from the substance of the tumour. On the mucous surface ulceration has also commenced. The tumour has caused such an amount of enlargement of the lip that the incisor teeth are almost hidden. The bone is apparently not invaded.

M.N. 1789. Nov. 7, 1882.

TONGUE: Epithelioma. 31 · 2 : 66 · 1

The specimen shows a large tumour of an elliptical shape in the right border of the tongue, which has undergone ulceration at its anterior end. The area affected by the tumour is indicated by the enormous thickening of the epithelium.

M.N. 1790. D.B. 2805. Mr. Southam.

TONGUE: Epithelioma. 31 · 2 : 66 · 1

On the under surface of the tongue and on the left side, a tumour has formed, and over the greater part of the tumour area there is a deep ulcer, the edges of which are somewhat overhanging, and the base of which consists of roughly granular tissue dark in colour.

M.N. 1792. D.B. 185.

TONGUE: Epithelioma. 31·2:66·1

A large rounded tumour occupies almost the whole of the left border of the tongue. The surface has commenced to ulcerate, and at one point the floor of the ulcer is situated deeply in the substance of the tongue.

M.N. 1793. Mr. Whitehead.

TONGUE: Epithelioma. 31·2:66·1

On the left border of the tongue immediately behind the tip and extending back for about two-thirds of the whole border, an epithelioma has formed, the surface of which presents a long irregular ulcer with a very much broken-up floor. At the anterior extremity of the ulcer the floor is situated at a considerable depth in the substance of the tongue.

M.N. 1794. July 16, 1883. Mr. Jones.

TONGUE: Epithelioma. 31·2:66·1

About the middle of the right border of the tongue an epithelioma has formed, on the surface of which ulceration has taken place, and has led to extensive excavation of the substance of the tumour. In passing from the ulcer to the dorsum of the tongue the epithelium has an atrophic appearance for a considerable distance.

M.N. 1795. Mr. Whitehead.

TONGUE: Epithelioma. 31·2:66·1

On the right side of the dorsum anteriorly a large irregular ulcer has formed. Its base has a warty appearance, and is deep in the tumour substance. To the left, the epithelium on the dorsum is thickened, and shows a smooth, slightly folded surface. The tip of the tongue has been thickened and distorted by the growth of the tumour.

M.N. 1797. April 24, 1883. Mr. Whitehead.

TONGUE: Epithelioma. 31·2:66·1

On the left border posteriorly a tumour is situated, about the size of a walnut, showing an irregular ulcer with well-defined margins. The tumour is considerably raised above the surface of the tongue. The boundary line of the tumour is well marked and somewhat overhangs the neighbouring tissue.

M.N. 1799. D.B. 2804. Prof. Jones.

TONGUE: Epithelioma. 31·2:66·1

On the left side, at the anterior end, the tongue is thickened by the growth of an epithelioma. At one portion it has assumed a fungating form, the surface of which has commenced to ulcerate. Over a large part of the remainder of the surface the epithelial covering has a dry, hard, smooth appearance, and this characteristic alteration of the epithelium extends for a considerable distance to the right of the middle line of the dorsal surface of the tongue. In the middle line a sulcus has formed, and along its borders the epithelium has been thrown into irregular folds.

M.N. 1800.

TONGUE: Epithelioma. 31·2:66·1

The specimen shows a distinct general thickening of the tongue. On the surface in the middle line there is a somewhat flat area of irregular thickening of the mucous membrane. A section made longitudinally shows that there is situated underneath the thickening first described a greyish rounded area of tumour growth, about the size of a walnut.

Microscopic section shows that the tumour is a squamous epithelioma. The centre of the tumour processes has undergone keratin transformation. In many places cell-nests appear. There is a good deal of tissue reaction.

M.N. 1996.

TONGUE: Squamous Epithelioma. 31 · 2 : 66 · 1

This specimen shows half of the tongue. The surface on the dorsal and lateral aspects is the seat of a large ulcer with an irregularly excavated floor. The epithelial layer covering the muscle is much thickened, and is sending processes down into the muscular substance.

Microscopic examination shows the tumour to be an epithelioma, with an excessive amount of keratin formation, a fair number of cell-nests, and a large amount of round-celled infiltration especially round the processes of the tumour, which have penetrated the muscular tissue.

M.N. 2903. D.B. 3173. June 14, 1895. Dr. Wolstenholme.

TONGUE: Epithelioma combined with Leukoplakia. 31 · 2 : 66 · 1
31 · 2 : 56 · 3

On the right side of the tongue near the tip, and spreading backwards along the border for some distance, there is a superficial ulcer of a very rough irregular form. The surrounding tissue is much thickened by the cancerous growth. On the dorsal surface of the tongue, to the left side of the middle line, there is a white raised patch due to chronic syphilitic inflammation. The surface of this patch is irregular, and the area is divided up into a multitude of small processes.

M.N. 3002. Mr. Southam.

PAROTID GLAND: Chondro-Sarcoma. 31 · 3 : 65 (63 · 3)

The specimen shows a rounded somewhat nodulated tumour. On the cut surface there is seen a central portion, cartilaginous in structure, revealing a number of hæmorrhages. The peripheral portion is chiefly of the opaque friable structure of sarcomatous tissue, and shows a number of minute cysts of myxomatous degeneration.

The patient was a man, aged 76 years. There was a history of 3 months' rapid enlargement of the tumour. There was no facial paralysis. The growth was excised, and recovery was uneventful.

M.N. 3020. Mr. Montgomery.

TONGUE: Epithelioma. 31·2:66·1

The specimen is a tongue excised for epithelioma. The growth is raised above the surface of the tongue, and is warty in appearance. Its margin is everted. A section of the growth has been made, showing that the infiltration extends deeply into the muscle of the tongue, especially at the border. The dorsum of the tongue is furrowed, and the papillæ are hypertrophied.

The patient was a man, aged 49 years, who had suffered from chronic superficial glossitis for a year. The tumour at the side of the tongue had been noticed for three months. The lymphatic glands beneath the sterno-mastoid near the angle of the jaw were involved. The tongue was removed by Kocher's method July 18, 1902. Death occurred four days later from pneumonia.

M.N. 3060. March 6, 1903. Mr. Wright.

TONGUE: Epithelioma. 31·2:66·1

The specimen consists in the tongue, the floor of the mouth and a portion of the mandible removed for epithelioma. The tumour is seen as a well-defined ulcerating mass situated on the border of the tongue posteriorly extending to the under surface of the tongue and to the floor of the mouth. The lower jaw shows a groove for a pipe-stem in the teeth, and the site of the tumour had been irritated by the pipe.

The patient was a man, aged 48 years.

M.N. 3067. Mr. Montgomery.

TONGUE; Epithelioma. 31·2:66·1

The specimen shows, extending along almost the whole of the left border of the tongue, a very ragged malignant ulcer. The tumour, of which this is the surface, forms a huge mass at the back of the tongue on the left side. The growth has not extended to the right side. The surface of section of the mass shows a nodule of cancerous growth situated close to a lobule of the sublingual salivary gland.

The patient was a man, aged 49 years. The submental and submaxillary glands on the left side and the upper deep cervical glands on the right side were involved. The operation was performed July 18, 1902, and the patient died from shock.

M.N. 3071.

TONGUE: Epithelioma. 31·2:66·1

The tongue was removed by operation. Along the right border can be seen two separate malignant ulcers. Around each there is a ring-shaped thickened ridge of epithelium. The floor of the ulcer is rough and uneven, and posteriorly it has been excavated to a considerable depth. The mucous membrane in the neighbourhood of the ulcers is somewhat smooth.

M.N. 3074. Feb. 24, 1904. Mr. J. W. Smith.

TONGUE: Epithelioma. 31·2:66·1

The specimen consists of the right half of a tongue. Occupying the posterior third of the border is a squamous epithelioma, on the surface of which an irregular ulcer has formed. The tumour also has broken out in a small patch on the under surface of the tongue. The mucous membrane around the ulcer is abnormally smooth.

The patient was a man, aged 60 years, who had suffered for 4 months from a rapidly-growing ulcer of the border of the tongue. Half the tongue was excised through the mouth.

M.N. 3225. Jan. 29, 1904. Mr. Collier.

HARD PALATE: Epithelioma. 31·4:66·1

The specimen consists of a portion of the upper jaw, including the hard palate, on the surface of which an epitheliomatous ulcer may be seen. The ulcer is outlined by a delicate raised and well-defined margin. The floor of the ulcer is rough, irregular and excavated.

Microscopically the specimen is a squamous epithelioma of the reticular variety.

The patient was a man, aged 45 years, who had suffered from an ulcer of the alveolus of the upper jaw for 6 weeks. The ulcer extended on to the inner surface of the cheek. A portion of the upper jaw with the involved soft part was removed.

M.N. 3457.

FLOOR OF MOUTH: Squamous Epithelioma. **31 : 66 · 1**

The specimen consists in the left half of the inferior maxilla. A large part of the tongue has been removed, but radiating bands of muscular tissue can be seen passing directly into the tumour mass, the centre of which is situated about the level of the lower part of the mandible. The tumour shows a central softening, and round this a tissue composed of a somewhat hyaline matrix containing in its meshes rounded areas of a more cellular structure, opaque in appearance.

Microscopically the tumour is a squamous epithelioma.

M.N. 3588. Mr. THORBURN.

TONGUE: Squamous Epithelioma. **31 · 2 : 66 · 1**

The specimen consists of a portion of the tongue removed by operation. The growth forms an ulcer situated on the left border of the tongue 1 inch from the tip. There was marked induration, but no involvement of the floor of the mouth nor of the glands of the neck.

The patient was a female, aged 62 years. The ulcer was of 4 months' duration. The tongue was removed through the mouth with scissors.

M.N. 3630. D.B. 3257. Nov. 6, 1895. Mr. THORBURN.

TONGUE: Epithelioma. **31 · 2 : 66 · 1**

The specimen shows the tongue and part of the pharyngeal wall, including the tonsil. On the right border of the tongue, in its posterior half, a large epithelioma has formed, and the surface has the characteristic roughened and ulcerated appearance. The tumour in this form extends continuously on to the tonsils.

M.N. 3633.

TONGUE: Squamous Epithelioma. 31·2:66·1

The specimen consists in the right half of the lower jaw and tongue and the upper part of the œsophagus, larynx and trachea. On the dorsum of the tongue, in its anterior part, there is present a cancer with a very rough papillary surface, the outer edge of which extends over the alveolar margin. On the cut surface the whitish tumour tissue is well defined from the muscle of the tongue. The attachment of the tongue to the symphysis menti is the seat of small pearly nodules of metastatic growth. Under the tongue a large cavity has formed, which is filled by partially decolorized blood-clot.

Microscopic examination shows a squamous epithelioma composed almost entirely of cells corresponding to those of the Malpighian layer and prickle cells. Round the tumour processes there is a large amount of cellular reaction.

M.N. 3686. D.B. 4739. P.M.M. 773. Nov. 16, 1905. Dr. Harris.

TONGUE: Squamous Epithelioma, Secondary Growth in Mediastinal Glands, Pulmonary Gangrene, Suppurative Pneumonia. 31·2:66·1 43·4:66·1 25:54·5 25:44·5

On the left side of the tongue, near its root, is a somewhat quadrilateral depressed ulcer covering an area equal to that of a threepenny piece. Its edges are prominent, smooth, and of the same colour as the rest of the lingual mucosa, but it feels firmer. The floor is smooth and dark grey. There is very little induration about the growth. There is marked enlargement of the superior, anterior and upper posterior mediastinal glands, and also of those near the tracheal bifurcation and in the root of the left lung. On section the glands are of a cream colour, and somewhat firm but friable. There was no sign of enlargement of cervical, lower posterior mediastinal nor abdominal glands. The left lung is much smaller than its fellow. It felt firm and heavy, and weighed 36 oz. No part of it is crepitant with the exception of the extreme apex, which is apparently normal. A vertical incision has been made extending from the hilum. There is seen a large irregular cavity about the size of a tangerine orange, occupying the adjacent portions of the upper and lower lobes near the hilum. Its walls are of dark-green colour, and of moderately firm

consistence. They are irregular, but not shaggy. Here and there they are smeared over with soft cheesy-looking material. The cavity was full of thin, turbid, dark greenish-grey, foul puriform fluid. The bulk of the remaining lung tissue is evenly consolidated, feels moderately firm, and has a pale pinkish-grey moist surface. Here and there in this consolidated tissue are small purulent foci, and in one or two cases near the large cavity these have formed small rounded unilocular cavities with smooth green walls and containing pus. The enlarged glands at the root of the lung have surrounded the bronchi and have slightly invaded the superficial part of the lung in that region. One or two of the enlarged glands have invaded the pericardium as irregularly nodular firm white masses. The right lung was hypertrophied. A secondary nodule was found in the liver.

The patient was a male, aged 52. He had been troubled with a cough for 12 months before death. The ulcer on the tongue was first noticed 6 months later. He was admitted to the M.R.I. in September, 1905, to have his tongue removed, but as his cough became worse he was transferred to the medical side. The cough came on in severe paroxysms, and brought up large quantities of frothy mucus with a very fœtid odour. On the left side of the chest were diminished respiratory movement, absence of vocal fremitus, very weak breath sounds, and a dull note over all the side apart from the apex. His temperature varied between 99° and 105°. He lost flesh, and died from exhaustion on Nov. 15, 1905. (See liver M.N. 3687—36:66·1.)

MOUTH: CYSTS.

M.N. 2261. Feb. 27, 1895. Mr. Stanmore Bishop.

TOOTH: from Dentigerous Cyst. 31·5:67·3

Tooth removed from a dentigerous cyst in the superior maxilla, where the crown of the tooth pointed upwards. Remains of the cyst-wall are seen adherent to the lateral aspects of the crown.

PHARYNX: MECHANICAL AND CHEMICAL LESIONS.

M.N. 1087.

TONGUE, PHARYNX, EPIGLOTTIS, and UPPER PART OF ŒSOPHAGUS: Inflammation from Sulphuric Acid Poisoning. 32 : 29 · 1 / 32 : 55 · 4 / 21 : 55 · 4 / 22 : 54 · 2

A black discoloration is observed on the epiglottis, the aryteno-epiglottidean folds and the upper part of the œsophageal tract. The mucous membrane of the epiglottis and that surrounding the glottis is swollen, discolored and considerably roughened. Fibrinous exudation is seen on various parts of the mucous membrane.

M.N. 3275. D.B. 3697. P.M.M. 1897, No. 98. Sept. 20, 1898.

PHARYNX: Obstruction. 32 : 28

The lower part of the pharynx is seen to be filled with a large mass of unmasticated meat which has completely obstructed the aperture of the glottis.

M.N. 3384. D.B. 3740. P.M.M. 1899, No. 170.

PHARYNX: Obstruction. 32 : 28

The specimen shows in the pharynx a large mass of meat, weighing an ounce, which the patient had attempted in vain to swallow. The head and neck were found distinctly cyanosed, but there was no other external sign of injury. The patient died from asphyxia.

PHARYNX: INFLAMMATION, INCLUDING SPECIFIC LESIONS.

M.N. 1090.

TONGUE, PHARYNX, OPENING OF LARYNX, and ŒSOPHAGUS: Ulceration of Tonsil, Œdema Glottidis. 32·3:55·4 22:37

The right tonsil is occupied by a large irregular ulcer, the base of which is composed of ragged masses of tissue partly detached. It is situated deeply in the substance of the tonsil. The mucous membrane of the pharynx, of the larynx round the glottis, and of the œsophagus at its upper end, is markedly swollen, and has led to partial closing of the laryngeal opening (œdema glottidis). The inflammation occurred during an attack of scarlet fever.

M.N. 1096. D.B. 988. Jan. 15, 1890. Dr. Ashby.

UVULA: Diphtheritic Cast. 32·4:56·8 32·4:46

This specimen shows a cast of the surface of the uvula composed of a fibrinous membrane formed during an attack of diphtheria.

M.N. 1099.

PHARYNX and LARYNX: Syphilis. 32:56·3 32:55·3 22:55·3

The specimen shows the larynx and upper part of the trachea and pharyngeal wall. On the left pharyngeal wall there is a large irregular excavated cavity with comparatively smooth walls, burrowing in the soft tissue outside the laryngeal cartilage. The mucous membrane of the larynx on the left side and on the posterior aspect of the epiglottis to the right side, is markedly thickened and irregularly ulcerated. The mucous membrane of the false vocal cords is distinctly swollen, and has commenced to ulcerate in the anterior part; the mucous membrane covering the true cords and the rest of the larynx over its whole area is thickened, ulcerated and sloughing. The ulcer was probably syphilitic in origin.

M.N. 1802. D.B. 2807. Mr. Southam.

TONSILS: Chronic Hypertrophic Tonsilitis. 32·3:55·2

The specimen shows two tonsils in a condition of hypertrophy resulting from chronic inflammation.

M.N. 3309. D.B. 4264. P.M.S. 407. Dec. 6, 1904. Mr. Wright.

PHARYNX and LARYNX: Stenosis of Pharynx. 32:56:1
Necrotic Ulceration of Pharynx. Œdema Glottidis. 32:55·3
Superficial Necrosis of Hyoid Bone. 32:55·5
22:37

At the junction of the pharynx with the œsophagus is an almost complete stenosis due to a cicatrix. The fibrous thickening is only slight, and there is no ulceration of the mucous membrane. On each side of the upper part of the larynx and extending along the outer aspect of the long process of the hyoid bone is a deep, foul-looking ulcer with very irregular soft walls of a greenish necrotic appearance. The ulcer has its long axis placed vertically; on the left side it is an inch long, on the right side almost 2 inches in length. The right ulcer extends very deeply in the soft tissues of the neck, and a communication could be traced with an ulcer (tuberculous) on the skin of the anterior part of the neck. The left ulcer was not so deep. In both ulcers could be felt the eroded ends of the posterior limbs of the hyoid bone, due to superficial necrosis, though this lesion was only slightly marked on the left side. There is some enlargement of the left tonsil, the uvula is slightly swollen, and there is marked œdema of the right aryteno-epiglottidean fold with corresponding encroachment on the aperture of the glottis.

The patient was a female, aged 28. The condition followed tuberculosis of the cervical glands Food came through from the pharyngeal ulcer to a sinus on the anterior part of the neck. (See stomach M.N. 3310—34:91.)

PHARYNX: BENIGN TUMOUR.

M.N. 1801. D.B. 2806. July, 1887. Mr. Jones.

TONSIL: Papilloma. 32·3:64·6

The specimen consists of a tumour mass, the surface of which is composed of a large number of papillary processes. The papillary processes show a fine reticulum of connective-tissue containing a number of lymphocytes, and they are covered by very tall columnar epithelium.

PHARYNX: MALIGNANT TUMOURS.

M.N. 1803. Mr. JORDAN.

PHARYNX: Lympho-Sarcoma. 32 : 65 · 9

The specimen shows a portion of the base of the skull, with the soft palate, pharynx, tongue and upper part of the larynx. Lying immediately under the base of the skull on either side of the naso-pharynx, and also in the middle line, is a large rounded soft mass of tumour growth. The tumour is a small round-celled sarcoma with very little matrix and apparently derived from the lymphoid tissue of the naso-pharynx.

M.N. 1804. D.B. 656. Mr. JONES.

PHARYNX: Epithelioma. 32 : 66 · 1
22 : 37

The specimen shows the pharynx and œsophagus, the larynx and upper part of the trachea. On the right side of the pharynx the tumour forms a large swelling, from the surface of which the mucous membrane has sloughed away and exposed an irregular shreddy tissue, which is tunnelled and excavated deeply. The tonsil and fauces on the right side are indistinguishable. There is a slight amount of œdema of the mucous membrane of the larynx above the level of the vocal cords.

Microscopic examination shows the structure of a squamous epithelioma. There is a considerable amount of tissue reaction around the growing edge of the tumour.

M.N. 3178.

PHARYNX: Epithelioma. 32 : 66 · 1
22 · 1 : 37

At the level of the larynx the greater part of the wall is infiltrated by a squamous epithelioma, the surface of which is extensively disintegrated. Accompanying this condition there is a marked degree of œdema of the glottis.

M.N. 3272. D.B. 3433. P.M.M. 1895, No. 171. June 10, 1896. Dr. Leech.

PHARYNX and LARYNX: Epithelioma. 32 : 66 · 1

On the right side of the pharynx, on a level with the glottis, is a deep excavation due to epithelioma. It had encroached downwards to the thyroid cartilage, exposing the right cornu and destroying the greater part of the right aryteno-epiglottidean fold and the right border of the epiglottis.

The patient was a male, aged 60. At the autopsy septic broncho-pneumonia was found.

M.N. 3533. D.B. 4366. P.M.S. 433. Mar. 28, 1905. Mr. Wright.

PHARYNX: Squamous Epithelioma. 32 : 66 · 1
32 : 25 · 1

In the lower part of the pharynx the new growth has encroached on the lumen to such an extent as to render the cavity unrecognizable. The vertical length of the mass is 2 inches, and it extends to just below the level of the thyroid cartilage. The upper and lower limits are well defined. The upper end of the growth is funnel-shaped, and the thickened margin runs horizontally round the circumference of the pharynx. The inter-arytenoid and aryteno-epiglottidean folds of mucous membrane are pale, soft and œdematous. On opening the larynx a smooth oval nodule projects slightly from beneath the under border of the thyroid cartilage in the middle line. It is of the size of an almond, and the mucosa over it is intact.

Microscopically the tumour was a squamous-celled epithelioma.

The patient was a female, aged 40. Secondary deposits were found in the cervical glands.

M.N. 3644.

PHARYNX: Sarcoma. 32 : 65 · 3

The specimen consists of the larynx and lower part of the pharynx. Springing from the laryngeal portion of the pharynx, on the left side, is a tumour, in the form of a fungus, which shows on the cut surface areas of hæmorrhage and softening, but is otherwise composed of somewhat soft friable

tissue. The tumour starts from a small base of attachment, but its mass is so large that it obstructs the opening of the larynx and pharynx. The growth was removed by operation September 26, 1900, but quickly recurred, and tracheotomy was necessary 3 months later. Death occurred December 16, 1900.

The microscopic section shows that the main part of the tumour tissue consists of sarcoma, in which the cells assume a large variety of shapes. Here and there, through the tissue, are patches of round-celled sarcomatous structure, arranged in the form of a cylindroma.

M.N. 3760. D.B. 4846. Feb. 20, 1906. Dr. Marsden.

PHARYNX: Squamous Epithelioma. 32 : 66 · 1
22 : 37

Arising from the laryngeal portion of the pharynx, to the left of the glottis, is a large mass of new growth. Its surface is covered with fine papillary projections, but over the upper half there is widespread shallow ulceration. The laryngeal orifice is somewhat compressed by the growth, and there is a considerable amount of œdema. Outside the tumour mass may be seen the left great cornu of the hyoid bone, from the end of which the periosteum has been stripped.

Microscopic examination shows that the tumour is a squamous epithelioma.

The patient was a man, aged 40. About the end of 1905 the patient began to suffer from hoarseness, and this increased, and was later accompanied by stridor. Tracheotomy was performed, but the patient died shortly afterwards. This history given extended for about 2 months only. There was no secondary involvement of glands.

ŒSOPHAGUS: MECHANICAL AND CHEMICAL LESIONS.

M.N. 1812. D.B. 1039. March 3, 1890.

ŒSOPHAGUS: Corrosive Poisoning. 33 : 29 · 1
33 : 55 · 4

The mucous membrane is thickened and nodular, the epithelium being swollen, and presenting the appearance of rounded flakes on the surface. Towards the lower end of the œsophagus the swollen necrosed patches of mucous membrane have a definite tendency to become detached. The nature of the corrosive is not specified.

M.N. 1813. P.M.M. 1886, No. 157. Feb., 1888.

ŒSOPHAGUS: Corrosive Poisoning. 33 : 29 . 1
33 : 55 · 5

The specimen shows the whole of the œsophagus, also the larynx and trachea down to its bifurcation, with the thyroid gland attached. The mucous membrane of the upper part of the œsophagus has apparently been the seat of œdema. About $2\frac{1}{2}$ inches down there is a stricture. Immediately below this the mucous membrane shows on its surface rounded nodular swellings. Over the lowest 5 inches there is complete erosion of the superficial layers of the mucous membrane, and thickening of the œsophageal wall. According to the history of the case the lesion was due to the swallowing of "boiler compound."

The patient, a man, aged 44, was admitted Feb. 21, 1884, and died on the 22nd. The stomach was free from abnormal appearances.

M.N. 1844. Mr. Bradley.

ŒSOPHAGUS: Stricture. 33 : 29 · 1
STOMACH: Gastrostomy. 33 : 55 · 5
34 : 91

The specimen illustrates the operation of gastrostomy. It was taken from the body of a boy, aged 15. He had swallowed caustic soda, and set up a stricture of the œsophagus, which caused total obliteration of the lumen. The part of the œsophagus shown here is the seat of a stricture. The boy lived 21 days after the operation, but died from exhaustion. There is a clinical note to the effect that "colloid degeneration of the liver and spleen was found after death."

ŒSOPHAGUS: INFLAMMATION.

M.N. 1814.

TRACHEA and ŒSOPHAGUS: Perforation of an Abcess. 33 : 55 · 3
33 : 22
23 : 22
23 (85) : 44

The preparation shows the tongue, soft palate, larynx, pharynx and upper parts of the œsophagus and trachea. The interior of the larynx and trachea is exposed by an anterior longitudinal incision. Seen on the anterior aspect of the preparation there is a circular aperture about $\frac{3}{4}$ inch in diameter, and with a somewhat irregular margin; this established a communication with the œsophagus. A cavity with irregular shreddy walls had existed between the trachea and the œsophagus at this site prior to the perforation of these structures. The preparation also shows necrosis of the posterior part of the cricoid cartilage, and over this there has been ulceration of the mucous membrane. The mucous membrane in the neighbourhood of the ulcer is thickened and œdematous.

There is no history of this case obtainable, but it seems probable that the condition is due to chronic (syphilitic) perichondritis.

M.N. 1815. D.B. 263. March 15, 1886. Mr. Southam.

ŒSOPHAGUS: Ulceration. 33 : 55 · 3
25 : 44 · 5

The specimen shows the larynx, œsophagus, trachea and a portion of lung. The wall of the œsophagus is thickened and thrown into irregular folds, and the submucous tissue is greatly swollen. The muscular coat of the œsophagus, especially towards its lower end, is hypertrophied. At the lower end of the œsophagus a large and deep ulcer has formed, apparently involving the whole thickness of the wall over the greater part of its area, and, at the right side, continuing in depth until it has perforated into the lung tissue. The floor of the ulcer is irregular, showing punched-out cavities. Perforation into the lung has led to pulmonary gangrene, and tags of gangrenous lung tissue are seen hanging from the lower border of the specimen. The cause of the ulceration is unknown.

ŒSOPHAGUS: MALIGNANT TUMOURS.

M.N. 1522. D.B. 2333. P.M.M. 1893, No. 200. Jan. 21, 1894. Dr. Harris.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
33 : 25

A very tight stricture is observed about $1\frac{1}{4}$ inches below the level of the cricoid cartilage, and this affects the œsophagus for about $2\frac{1}{2}$ inches. The lymphatic glands round the site show general enlargement, and there are a number of small nodules in the mucous membrane of the trachea. The lungs displayed early pneumonic consolidation.

The patient, a male, aged 39, was extremely wasted and anæmic, and the chief symptom of his case was dysphagia. He was admitted on Nov. 25, 1893, and died on Jan. 25, 1894. During his stay in hospital the axillary glands became enlarged also.

M.N. 1816. D.B. 954. Dec. 4, 1889. Dr. Harris.

ŒSOPHAGUS: Epithelioma. 33 : 66 · 1
33 : 44 · 2
33 : 25

The specimen shows the upper part of the œsophagus and the corresponding portion of the larynx and trachea. The upper part of the œsophageal wall on the left side displays a large fungating and slightly papillary mass of tumour growth, and this has destroyed the mucous membrane, all but a narrow strip. There is some ragged ulceration on the surface of the more prominent masses of tumour. The cut surface presents the characteristic meshwork of a squamous epithelioma.

Microscopic examination shows the tumour to be a squamous epithelioma. The cells of the tumour processes are small and flattened, presenting an appearance resembling that of fibrous tissue. There is little keratin formation. A few cell-nests occur here and there. There is a very slight tissue reaction. Some parts of the tissue which the tumour is invading are in a state of necrosis.

M.N. 1817. D.B. 295. P.M.S. 1881, No. 207. April, 1886. Mr. Wright.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
33 : 45 · 2

The specimen shows the œsophagus laid open in the upper two-thirds of its extent. In the posterior wall of the upper part there is a new growth which has thickened the wall and caused obstruction of the lumen, and commencing ulceration has taken place on its surface. On section the tumour mass presents a flat spindle-shaped outline. The cut surface shows the epithelium growing in the fibrous matrix, giving a characteristic marking to the tissue.

Microscopically the tumour consists of a squamous epithelioma. In the columns, however, there is little transformation of the cells into keratin scales. Scattered through the growing layer there are a number of very large cells, the nuclei of which are extremely rich in chromatin. A considerable number of the cells are in a state of nuclear division. The section shows at some points the invasion of the muscular layer of the œsophageal wall. There is not much tissue reaction, but at some points the lymphatic spaces are crowded with round cells. No cell-nests are present.

The patient was admitted on April 1st, and died 12th April, 1886. He was an old man, much emaciated. Gastrostomy had been performed. There was marked stenosis of the œsophagus. The stenosis extended over 2 inches. The tumour involved the whole circumference of the œsophagus, except a small strip situated anteriorly. There were no secondary deposits in the liver or lungs. There was no peritonitis. The patient died of acute croupous pneumonia.

M.N. 1818. D.B. 2808.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
33 : 45 · 2

The specimen consists in the upper part of the œsophagus, the larynx and the upper part of the trachea. Starting from each side of the larynx and passing downwards and forwards until they meet in the middle line, some distance below, are two large malignant ulcers. The base of these ulcers is situated deeply in the tissues at the side of the larynx. Outside the area of ulceration, and in the tissue surrounding the vessels and nerves of the neck on the right side, there is a large tumour mass, a direct extension from the œsophageal tumour. This extension shows in its centre marked softening.

Microscopic examination indicates the tumour to be a squamous epithelioma. The processes of epithelial growth in the secondary nodules lying outside the vessels of the neck have undergone very extensive keratin transformation, and have become softened. The epithelial cells which remain are very much compressed. A few cell-nests are visible. Many of the cells show extensive vacuolation.

M.N. 1819. Mr. Jones.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
33 : 25 · 1

The œsophagus is laid open and exhibits great thickening of the walls with irregular nodular projections of the mucous surface. The lumen at this point is somewhat sinuous, and could admit only a No. 8 catheter. Above the stricture the œsophagus is considerably dilated. The stricture is about 2 inches above the cardiac end of the œsophagus.

Microscopic examination shows the stricture to be a squamous-celled epithelioma.

The patient for some time suffered from symptoms of stricture, to relieve which gastrostomy was performed.

M.N. 1820 Mr. Whitehead.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
BRONCHUS: Compression. 33 : 22
24 : 26

Opposite the bifurcation of the trachea there is extensive destruction of the œsophagus. For a distance of $2\frac{1}{2}$ inches the greater part of the œsophageal wall has entirely disappeared, and a comparatively thin band at its anterior and outer part maintains the continuity of the tube. The remaining part of the œsophagus, near the area of destruction, shows thickening, and the margins of the rupture are irregular and ragged. The bronchial glands are indurated and enlarged, and the left bronchus is flattened from before backwards.

Microscopic examination indicates the ulcer to be a squamous epithelioma.

The patient suffered from symptoms of stricture of œsophagus, and the first step of gastrostomy was performed, but the patient died of shock a few hours after the operation.

M.N. 1821.

ŒSOPHAGUS: Epithelioma. 33 : 66 · 1
TRACHEA: Perforation. 33 : 22
23 : 22

At the level of the bifurcation of the trachea a tumour has formed in the œsophagus. The substance of it has been largely eaten away by the process of ulceration. The base of the ulcer is very irregular, and at one point passes into the cavity which opens into the trachea at its bifurcation. The opening into the trachea is about the size of a threepenny piece. The mucous membrane around it is everted, swollen and necrosed. The structure of the tumour is that of squamous epithelioma.

M.N. 1824. D.B. 2862.

ŒSOPHAGUS: Lympho-Sarcoma. 33 : 65 · 9
TRACHEA: Perforation. 33 : 22
23 : 22
43 · 4 : 65 · 9

The specimen shows the lower portion of the trachea and its bifurcation and the corresponding part of the œsophagus. The lumen of the œsophagus is laid open, and on the anterior wall a large tumour has formed, and has projected into the lumen in somewhat flat rounded masses. The centre of the mass is the seat of a deep ulcer, in the base of which is the opening of a perforation into the trachea. The origin of the tumour was probably in the mediastinal glands.

Microscopic examination shows the tumour to be a lympho-sarcoma. The tissue consists of fairly large round cells arranged in alveoli, the limits of which are defined by an exceedingly delicate strand of connective-tissue, and in the strand very thin-walled blood-vessels are situated. The cells are in a state of actual growth, many of the nuclei showing karyokinetic figures.

M.N. 1825. D.B. 1240. April 28, 1891. Dr. Leech.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
34 : 45 · 2

About the middle of the specimen the wall shows a large mass of tumour growth which has been to a considerable extent eaten away by an ulceration. The outline of the ulcer is very irregular; the edges are overhanging and the base is roughly granular. The mucous membrane is markedly swollen in the neighbourhood of the ulcer, and the muscular coat is considerably hypertrophied. The structure of the tumour is that of a squamous epithelioma.

M.N. 1826. D.B. 902A. Oct. 18, 1889. Dr. Harris.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
LUNG: Gangrene. 25 : 44 · 5

The specimen shows the œsophagus and left lung. About the level of the root of the lung the internal surface of the œsophagus presents over a considerable area a tumour growth with an ulcerated surface. At one point the process of ulceration has burrowed deeply and passes into the substance of the lung to which the œsophagus adheres, and at the lower border of the upper lobe gangrenous cavities have formed from the introduction of putrefactive matter. In the larger of these cavities the septal fibrous tissue of the lung hangs free as a shredded felted mass. The lung tissue in the neighbourhood of these cavities, and especially in the lower lobe, shows a uniform pneumonic consolidation (putrefactive pneumonia). The pleura over the site of the cavity displays a fibrinous membrane of recent formation. Small discrete white patches of consolidation and colliquative necrosis occur over the part of the lung which is not completely consolidated. (See lung M.N. 1156—25 : 44·5.)

M.N. 2710. D.B. 3977. Feb. 20, 1902. Mr. Thorburn.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
33 : 25

The specimen shows the œsophagus and cardiac end of the stomach, with, adhering to it, the thoracic portion of the aorta. Situated about 2 inches above the cardiac opening, there is a large tumour mass infiltrating the wall of the

œsophagus, round the whole of the circumference for about the space of $2\frac{1}{2}$ inches. Immediately above the tumour the œsophagus is dilated, and the muscular wall is somewhat but not markedly hypertrophied. The surface of the tumour, as it presents in the lumen of the œsophagus, is irregularly nodular and ragged, and the lumen has been very much constricted. The thickness of the growth in the wall is about $1\frac{1}{2}$ inches. The aorta is adherent to the tumour mass. The minute structure of the specimen is that of a squamous epithelioma.

M.N. 2775. D.B. 3994. June 9, 1902. Dr. Harris.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1
TRACHEA: Invasion by Tumour. 33 : 25
·23 : 66 · 1

The specimen shows the tongue, pharynx, œsophagus and trachea down to its bifurcation. Below the commencement of the œsophagus a tumour has formed in the anterior wall, and has led to the presence of a mass which obstructs the lumen. The lower part has commenced to ulcerate. The mass of the tumour lies in the tissues between the œsophagus and trachea on the left side, where it forms an irregular, somewhat flattened, rounded swelling. The pressure of the growth has caused some deformity in the wall of the trachea, and the cancer has infiltrated the mucous membrane and led to a nodular thickening of its surface with commencing ulceration.

M.N. 2853. D.B. 4125. P.M.M. 449. July 27, 1903. Dr. Dreschfeld.

ŒSOPHAGUS: Epithelioma. 33 : 66 · 1
LUNG: Gangrene. 25 : 44 · 5
26 : 55 · 1

The lowest 3 inches of the œsophagus shows irregular ulceration extending round the entire circumference. The edges of the ulcer were soft, thickened and friable. The base was dirty-grey and friable, but there was no evidence of perforation. The œsophagus above was normal. The lower end of the ulcer reached the cardiac orifice of the stomach. In the right lung the lower lobe shows a large ragged cavity which reached the surface posteriorly, but which in front did not reach the pleura. Above, the cavity extended nearly to the

apex. The walls of the cavity are irregular, soft, friable, shreddy, and of a dark-greyish green colour. In parts only the pleura remained. The contents were thin, turbid, brownish-grey liquid with a sour foul odour. No vessels nor bronchi nor trabeculæ cross the cavity. The pleura was somewhat thickened and opaque in patches. This was found to be a squamous-celled carcinoma. There was incomplete stenosis, and partial dysphagia for 6 months before death. Ten days before death the temperature rose. Four days before death the breath became very foul.

The patient died from gangrene of the lung.

M.N. 3305. D.B. 4596. P.M.S. 450. June 10, 1905. Mr. Collier.

ŒSOPHAGUS: Squamous Epithelioma. 33 : 66 · 1

The upper 4 inches of the œsophagus is the seat of a very irregularly nodular mass affecting the entire circumference, and leading to marked constriction of the lumen. The growth has a pale-grey colour, and there is evidence of ulceration. The upper and lower borders are well defined and prominent. Section of the wall shows the opaque white thickening due to infiltration of the deeper layers of the œsophagus by tumour growth. The operation of gastrostomy was performed, but the patient died some time later from acute general peritonitis.

Microscopic examination shows the tumour to be a typical squamous epithelioma.

The patient was a female, aged 40. (See heart M.N. 3359—12 : 41.)

M.N. 3514. D.B. 3573. Mr. Richmond.

ŒSOPHAGUS and TRACHEA: Squamous Epithelioma. 33 : 66 · 1
25 : 66 · 1
23 : 66 · 1

Projecting into the lumen of the œsophagus is a tumour, about the size of a pigeon's egg. The surface of this tumour is smooth, and a mesial section shows that the tissue is soft and easily torn. Immediately below this is a lozenge-shaped area of tumour in the wall of the œsophagus. It exhibits commencing ulceration on the surface. The larger tumour is continuous with a large mass in the mediastinum, and from this there has been an invasion of the wall of the trachea in whose lumen is seen a rounded tuberculated growth. The origin of this tumour is not given. It has the structure of a squamous epithelioma.

STOMACH: CONGENITAL LESIONS.

M.N. 2791. D.B. 4237. Oct. 11, 1904. Dr. Ashby.

STOMACH: Hypertrophic Pyloric Stenosis. 34 : 12 · 1
34 : 62 · 6

The specimen is dissected to show the mucosa of the pyloric end of the stomach. The muscular coat of the pylorus displays marked hypertrophy. A fold of mucous membrane appears to obstruct the lumen.

M.N. 2794. D.B. 4236. Oct. 11, 1904. Dr. Ashby.

STOMACH: Hypertrophic Pyloric Stenosis. 34 : 12 · 6
34 : 62 · 1

The specimen is from a child, æt. 17 weeks, admitted to the hospital for excessive abdominal peristalsis and vomiting, both of which commenced when the child was 9 weeks old. The vomiting continued; constipation was present, and there was hardly any food débris in the fæces. The stomach is of large size, and shows considerable dilatation, particularly at the cardiac end. The pylorus exhibits great hypertrophy of its muscular coat, and its lumen is obstructed by a fold of mucous membrane.

M.N. 3735. D.B. 4644. July 10, 1905. Dr. Ashby.

STOMACH: Congenital Stenosis of the Pylorus. 34 : 12 · 6
34 : 62 · 1

The stomach is from an infant, aged 9 weeks. The muscular coat at the pylorus is much hypertrophied, and the orifice is correspondingly diminished.

STOMACH: MECHANICAL LESIONS.

M.N. 1830. Dr. Simpson.

STOMACH: Contracture. 34 : 25
34 : 41

This small stomach is from a patient, aged 43. There is no history of the case.

M.N. 2463.

STOMACH: Foreign Body. 34 : 28

A knife which was passed through the abdominal wall 9 weeks after it had been swallowed.

M.N. 2466.

STOMACH; Foreign Body. 34 : 28

Hair balls from the stomach (ox?).

M.N. 3614. D.B. 4447. April 17, 1901. Mr. J. W. Smith.

STOMACH: Traumatic Rupture. 34 : 21
34 : 22
34 (38) : 54 · 2

Situated on the posterior wall of the stomach, about midway between the two curvatures, but nearer the pylorie than the cardiac end, there is a rupture extending through all the coats, and in a vertical direction, for about $1\frac{3}{4}$ inches. Its position is indicated by a glass rod, and the margins, which are irregular, especially on the mucous aspect, are held together by a suture. The surrounding area of the wall of the stomach is extensively discoloured, and the peritoneal surface is roughened by a deposit of flakes of lymph. At a corresponding point on the anterior wall there is an abrasion of the serous coat and a discoloration around this. The section of the stomach wall immediately above this shows that there has been an extensive extravasation of blood into all the coats.

STOMACH: CHEMICAL AND THERMAL LESIONS.

M.N. 1834.

STOMACH: Carbolic Acid Poisoning. 34 : 29 · 1
34 : 55 · 4
34 : 33

The stomach is somewhat dilated. The mucous membrane is considerably thickened and thrown into innumerable fine rugæ over the greater part of its surface. Along the line of the greater curvature, and especially towards the pyloric end, large swollen folds are developed on the surface. At the cardiac end there is a large irregular patch of ecchymosis into the mucous membrane. There is no perforation, and there is no sign of peritonitis.

The patient died in 24 hours.

M.N. 1835. D.B. 1963. May 5, 1886. Dr. Dixon Mann.

STOMACH: Carbolic Acid Poisoning. 34 : 29 · 1
34 : 55 · 4

The stomach has been evaginated. The mucous membrane shows at its surface a large number of areas of necrosis. These form irregular masses and ridges which are broken by transverse lines, and they have the characteristic greyish-white colour. The mucous membrane between these masses is smooth and bleached in appearance. (See M.N. 1937—35·1 : 29·1.)

M.N. 1838.

STOMACH: Sulphuric Acid Poisoning. 34 : 29 · 1
34 : 55 · 4

A man, aged 23, swallowed sulphuric acid to commit suicide, and died 24 hours after, 6 hours after admission to the Manchester Royal Infirmary. The stomach has been evaginated. The mucous membrane is enormously thickened and rugose. The epithelial layer covering the summits of the rugæ is very extensively necrosed. This change is seen especially at the cardiac end of the stomach, but the poison has had a similar effect on the mucous membrane of the duodenum. At the cardiac end of the stomach there is also a good deal of charring. There was marked peritonitis, but no perforation.

M.N. 1839. Mr. Turner.

STOMACH: Sulphuric Acid Poisoning. 34 : 29 · 1
34 : 55 · 4
34 : 22

The mucous membrane is enormously swollen, thrown into folds, and charred by the corrosive action of the poison. At two or three points the whole thickness of the stomach wall has been destroyed, and a large perforation is seen. The edges of the largest of these perforations present irregular tags of tissue, and the charring effect has been here so marked that the blackening is visible from the peritoneal aspect of the stomach wall.

M.N. 1840.

STOMACH; Sulphuric Acid Poisoning. 34 : 29 · 1
34 · 55 · 4

The stomach has been evaginated and the whole wall, with the exception of a few patches, is blackened from the charring effects of a dose of sulphuric acid. Towards the pyloric end the surface has become ragged, and the superficial parts of it broken away.

Patient, a male, aged 22, swallowed the acid with suicidal intent, and died 24 hours afterwards. There was very little peritonitis. He remained perfectly conscious, but had excessive pain.

M.N. 1841. Dr. Dreschfeld.

STOMACH; Sulphuric (?) Acid Poisoning. 34 : 29 · 1
34 · 55 · 4

The mucous membrane is enormously thickened and thrown into large widely-separated folds. Over a large part of its area it is charred, and on the surface a false membrane has formed, parts of which are becoming detached. Yellowish patches of localised necrosis surrounded by a zone of dark pigmentation (congestion) occur here and there over the mucous membrane.

M.N. 1845.

STOMACH: Poisoning by Sulphuric Acid (?). 34 : 29 · 1
34 : 55 · 4

The mucous coat is softened, swollen, and of a deep black colour, and shows superficial destruction. At the upper part of the specimen a small portion of the wall is seen unaffected.

M.N. 3329. D.B. 3158. P.M.M. 1895, No. 19. June 12, 1895.

STOMACH; Carbolic Acid Poisoning. 34 : 29 · 1

The entire mucous membrane is swollen and of a dark-brown colour. Along the most prominent part of the rugæ are seen innumerable fine granules due to necrosis of the epithelium. The entire wall is markedly thickened. The changes are most marked in the region of the fundus.

The patient was a female, aged 44. She was in the hospital for 4 days.

M.N. 3398. D.B. 3890. June 11, 1901. Dr. Dixon Mann.

STOMACH; Caustic Soda Poisoning. 34 : 29 · 1

The stomach has been opened along the greater curvature. The mucous membrane is slightly swollen, and this is especially marked in the region of the cardiac orifice. There is some discoloration of the mucosa due to necrosis of the epithelium.

M.N. 3567. D.B. 4373. P.M.M. 710. April 26, 1905. Dr. Reynolds.

STOMACH: Corrosive Sublimate Poisoning. 34 : 29 · 1

The stomach is of normal size, and shows the entire mucosa much injected and of a bright red colour. The mucosa is swollen, and over the pyloric half it was coated with opaque yellow mucus. At the lowest part of the fundus is a dirty greenish-yellow sessile mass of necrotic tissue projecting fully $\frac{1}{2}$ inch

into the cavity of the stomach. This mass is well defined, and covers an area equal to that of a half-crown. No signs of necrosis or inflammation were to be seen on the serous aspect.

Microscopical examination of the nodule shows that the mucous membrane over the surface is very much disintegrated and congested, but does not show much leucocytic infiltration. In the sub-mucosa there is a large amount of leucocytic invasion and exudation, which has caused wide separation of the strands of fibrous tissue. There is also much hyaline degeneration of the constituents of this coat and extensive hæmorrhage into the disintegrated tissue. A somewhat similar but less marked change is seen in the muscular coat, and the blood-vessels of the serous coat are markedly dilated.

The patient was a woman who died from swallowing some tabloids of perchloride of mercury, which probably settled at the site of the swollen area in the fundus. (See large intestine M.N. 3424—35·4 : 29·1, and kidney M.N. 3434—51 : 87·5, and small intestine M.N. 3590—35·2 : 29·1.)

M.N. 3683. D.B. 4761. P.M.M. 782. Dec. 2, 1905.

STOMACH : Oxalic Acid Poisoning. 34 : 29 · 1

The stomach was collapsed, and its walls do not appear thickened. A large amount of tenacious mucus of a slightly brownish colour was adherent to the mucosa, especially in the region of the pylorus. The whole mucous membrane has a mottled grey and brown colour, the grey portions being especially at the fundus and along the lesser curvature. Throughout both grey and brown areas is seen a very dense fine network of dark injected vessels. The solitary follicles are enlarged, and project as yellow nodules on the brown surface, especially near the pylorus. The stomach contained about 4 oz. of pale, watery, yellowish fluid, somewhat turbid, but having no special odour. There are no signs of hæmorrhage or of focal necrosis or ulceration. The œsophagus in all but its uppermost part shows an intensely opaque china-grey-coloured mucosa. The longitudinal wrinkles are lost, and the whole wall resembles damp thick paper. This opacity ends abruptly at the cardiac orifice by a well-defined crenated margin, the tips of the projections being detached from subjacent tissues. The mouth and tongue were normal. The pharynx was normal except for the presence of a large excess of mucus and a well-marked bluish discoloration in

the region of the glottis. The larynx and trachea contained much brownish mucus. The posterior wall of the trachea in its lower half showed a longitudinal strip of brown discoloration along that part which is free from cartilage and corresponding to the affected area of the œsophagus. There was very slight œdema of the margins of the glottis. The mucous membrane of the duodenum is thickened and of a brownish-yellow colour throughout. The small intestine shows more or less evenly distributed bright red injection of the mucosa, most marked in the upper parts. The large intestine showed, like the ileum, some patches of bright red injection, and in the cæcum were some slightly enlarged solitary follicles.

The patient was a woman, aged 33, who was brought in dead to M.R.I.

M.N. 3774. D.B. 4786. Nov. 21, 1905. Mr. Roberts.

STOMACH; Poisoning by Potassium Cyanide. 34 : 29 · 1

The stomach has been turned inside out to show the interior. The mucous membrane is swollen and congested and thrown into folds. It is dull-red in colour, but has lost the characteristic shade which it presented in the recent state.

STOMACH; CIRCULATORY DISORDERS.

M.N. 1831. D.B. 1422. P.M.M. 1891, No. 103. Feb. 7, 1892. Dr. Leech.

STOMACH: Hæmorrhage. 34 : 33

The stomach is distinctly atrophied. The anterior wall has been raised, and shows the cavity filled with blood-clot. The patient had alcoholic cirrhosis of the liver. (See M.N. 278—36 : 53.)

STOMACH: ULCERATION AND OTHER RETROGRESSIVE DISORDERS.

M.N. 1850.

STOMACH: Simple Ulcer and Perforation. 34 : 45 · 1
34 : 22
38 : 54 · 1

The mucous membrane is very much thickened, and in the centre of the specimen a small ulcer has formed which has perforated through the peritoneal coat. There is no sign of terracing. The opening on the peritoneal surface is angular in form, and the serous membrane surrounding it shows the thickening and discoloration of recent inflammation.

M.N. 1851. D.B. 2716.

STOMACH: Simple Ulcer, Perforation. 34 : 45 · 1
34 : 22
38 : 54 · 1

In this portion of the stomach wall the mucous membrane is very much thickened and folded. In the centre of the specimen a rounded, punched-out ulcer, about the size of a sixpence, has formed, which passes through the wall and perforates the peritoneum. The opening on the peritoneal surface is slightly smaller than that on the mucous surface. The appearance of terracing can just be made out. The serous membrane round the ulcer shows signs of recent inflammation.

M.N. 1852. Dr. Ransome.

STOMACH: Simple Ulcer, Perforation. 34 : 45 · 1
34 : 22
38 : 54 · 2

Near the middle of the lesser curvature of the stomach an elliptical ulcer has formed, about $1\frac{1}{2}$ inches in length and $\frac{3}{4}$ inch in breadth, lying with its long axis transverse to the line of the smaller curvature. At one end of the ulcer there is a slit-like opening where the ulcer has perforated into the peritoneal cavity. In the neighbourhood of this perforation, on the peritoneal surface, there was a large amount of serous inflammation. The mucous membrane of the stomach is very much thickened.

M.N. 1853. Mr. Jordan.

STOMACH: Simple Ulcer, Perforation. 34 : 45 · 1
34 : 22

Near the line of the smaller curvature an ulcer, about the size of a shilling, has formed, and has perforated through the peritoneal coat. The mucous membrane round the ulcer is much swollen and thrown into folds. The ulcer has a punched-out appearance. There is no sign of inflammation on the peritoneal coat surrounding the ulcer.

M.N. 1855.

STOMACH: Simple Ulcer, Perforation. 34 : 45 · 1
34 : 42
38 : 55 · 7

About the centre of the preparation there is a deep, somewhat funnel-shaped smooth-walled excavation, at the bottom of which there is a perforation, seen best on the peritoneal surface of the viscus, where the edges of the orifice are thin. Round the orifice the external surface shows extensive adhesions. The wall of the stomach is thickened and puckered in the neighbourhood of the ulcer.

M.N. 1856. May, 1884.

STOMACH: Simple Ulcer, Perforation, Adhesions. 34 : 45 · 1
34 : 22
34 : 55 · 7

A large ulcer of an oblong quadrangular shape is situated about the middle point of the posterior wall of the stomach. The ulceration has extended through the muscular coat, and the adhesions which have formed have united the floor of the ulcer to the neighbouring portions of the liver and pancreas, which are seen at the back of the specimen. A small perforation has formed in the floor of the ulcer at the side of the area which is included in the adhesions.

M.N. 1858. D.B. 246. March 5, 1886. Dr. Dreschfeld.

STOMACH; Simple Ulcer. 34 : 45 · 1

A large oblong ulcer is seen on the smaller curvature at the pyloric end of the viscus. It extends to both anterior and posterior walls. The edges of the ulcer show well-marked terracing. The floor of the ulcer is composed of thickened serous coat. The mucous membrane of the stomach generally is somewhat thickened. There is no perforation or adhesion.

M.N. 1859. D.B. 2715.

STOMACH: Simple Ulcer, Perforation. 34 : 45 · 1
34 : 22

An ulcer, about the size of a two-shilling piece, is situated at the pyloro-duodenal junction. It has perforated through the peritoneal coat. The cavity of the ulcer is conical in form, and has a terraced appearance from the fact that the ulceration affects a smaller area in the muscular than in the mucous coat, and in the peritoneal coat still smaller than in the muscular. The opening in the peritoneal coat is about the size of a threepenny piece. The peritoneum round this opening shows very little sign of inflammation. In the same line as this ulcer, and a little to the left, there is a small scar in the mucous membrane, indicating the presence of a former ulcer. The mucous membrane in this region is very much thickened.

M.N. 1862. D.B. 509.

STOMACH: Simple Ulcer. 34 : 45 · 1
37 : 55 · 1
14 · 6 (37) : 22

The specimen shows a large gastric ulcer which has destroyed the wall of the stomach, and become adherent to the pancreas. The glandular tissue of the pancreas forms the floor of the ulcer, and in the midst of the floor there is seen a perforation into a large pancreatic blood-vessel.

M.N. 2870. D.B. 4172. P.M.S. 347. Nov. 27, 1903. Mr. Thorburn.

STOMACH: Simple Ulcer with Stenosis at the Pylorus. 34 : 45 · 1
34 : 55 · 5
34 : 62 · 1

The stomach was much distended. The upper part of the anterior wall was united to the liver by fibrous adhesions. The smaller curvature was adherent to the under surface of the liver, especially to the left lobe, and these adhesions were thick, massive and firm. On opening the stomach there were found in it masses of dark-brown friable clot. The walls were markedly thick and firm, especially in the pyloric half of the stomach. The muscular coat was thickened, and there was thickening of the mucous coat, especially of the lymphoid follicles. Near the pylorus were two ulcers (*a*) the larger, the size of a florin, encircling the pylorus in its posterior, upper, and lower aspects. It was crescentic in outline. The edges are thick, firm and steep, not terraced. The base is pale, smooth, and firm. It is deep, and separated from the pancreas by indurated fibrous tissue. Near the upper margin of the ulcer there is seen a conical, firm, black projection, the free end of a large artery which has undergone erosion and thrombosis. The margin of the pylorus is firm and slightly thickened. The orifice is reduced to a small unyielding slit which barely admits a blacklead pencil. (*b*) The smaller ulcer, about one-fourth the size of the other, is situated in front of, and below, the pylorus. It does not encroach upon the pylorus. It is like the other ulcer, but has a pyriform outline, and is less deep.

Gastro-jejunostomy was performed, and the patient did well till a week before death, when he contracted pneumonia of the right lung. There was 10 years' history of gastric trouble, and 12 months' history of hæmatemesis. The patient was a male, aged 64.

M.N. 3269. D.B. 3565. P.M.M. 1896, No. 141. May 26, 1897.
Dr. Dreschfeld.

STOMACH: Simple Ulcer. 34 : 45 · 1
37 : 55 · 7

The stomach was small and contracted, lying chiefly under cover of the ribs, and it was almost empty. Four inches from the œsophageal orifice is a large ulcer of 2 inches diameter and very deep. The borders and edges are

undermined; the base is formed by the hard indurated body of the pancreas. To the left the ulcer is bounded by the left kidney and the tail of the pancreas. The spleen was also adherent to, and slightly excavated by, the ulcer at this part. At the lower part is a fistulous communication with the jejunum, and through this aperture are seen polypoid projections of the mucous membrane of the bowel.

The patient was a female, aged 41. There was no history of hæmatemesis, but advanced mitral stenosis was found at the autopsy. There was also very extensive fibrous adhesions between all the organs in the upper region of the abdomen.

M.N. 3274. D.B. 2538. P.M.S. 1892, No. 122. May 3, 1894.
Dr. Harris and Mr. Southam.

STOMACH: Simple Ulcer. 34 : 45 · 1
37 : 55 : 7

On the posterior wall, and adjacent portion of the smaller curvature, $1\frac{1}{2}$ inches from the pylorus, is seen a large oval ulcer $1\frac{1}{2}$ inches in diameter. The edges of the ulcer are smooth, indurated, rounded and extensively undermined. The floor is smooth and is formed by the head of the pancreas and some indurated peri-pancreatic tissue. The stomach was firmly adherent to the under surface of the liver and to the anterior abdominal wall.

M.N. 3298. D.B. 4262. P.M.S. 405. Dec. 5, 1904. Mr. Thorburn.

STOMACH; Simple Ulcer, Hour-glass Contraction, Gastro-Jejunostomy. 34 : 45 · 1
34 : 24
33 : 55 · 5
34 : 91

The stomach was much distended. It showed a well-marked hour-glass shape, the constriction lying slightly towards the pylorus. The walls felt firmer and thicker than normal, and there were firm fibrous adhesions to both the left lobe of liver and to the pancreas. On opening up the stomach (as seen in the specimen) the constriction has a distinct fibrous appearance, and divides the stomach into two compartments, the larger of which is at the cardiac end.

This portion contained much dark-brown liquid. On the lesser curvature adjacent to the constriction is an oval ulcer, the size of a half-crown, with smooth, firm, somewhat sharp edges well undermined. Its base is rough and firm, and is formed by the pancreas. The pyloric half contained a little bile-stained fluid like that found in the duodenum. The stenosis admits only the little finger-tip. The pylorus is normal. There is an artificial communication (gastro-jejunostomy) between the pyloric half (along the greater curvature) and the jejunum, about six inches beyond the end of the duodenum.

The patient was a female, aged 51.

M.N. 3339. D.B. 3708. P.M.M. 1898, No. 29. Jan. 9, 1899.

Dr. Graham Steell.

STOMACH and DUODENUM: Simple Ulcer. 34 : 45 · 1
35 · 1 : 45 · 1
35 · 1 : 22

On the lesser curvature of the stomach $2\frac{1}{2}$ inches from the pylorus, there is an oval ulcer, having a diameter of $\frac{3}{4}$ inch, with sharply-cut edges and of moderate depth. Its base is fairly smooth. To the right of this is a smaller ulcer of fusiform outline. Neither of these have perforated. In the duodenum, immediately beyond the pylorus, is another similar ulcer, but in this case there has been perforation into the peritoneal cavity.

M.N. 3480. D.B. 4323. Feb. 15, 1905. Dr. Dixon Mann.

STOMACH: Simple Ulcer. 34 : 45 · 1
34 : 22
37 : 55 · 7

A large ulcer, oval in shape, about 3 by $1\frac{3}{4}$ inches in size, is situated close to the pyloric orifice. The ulcer extends for about $1\frac{1}{2}$ inches from the line of the lesser curvature on both the anterior and the posterior walls. A perforation, about the size of a sixpence, is present at the lower edge of the anterior portion of the ulcer. At the lower extremity of the posterior portion of the ulcer is another perforation. At this point the stomach was adherent to the pancreas, and the opening was made during the removal of the organ. The edges of the

ulcer are thick and undermined. The floor of the ulcer is smooth, although slightly uneven, and it contains a number of hæmorrhagic areas. It is formed by the thickened peritoneal covering, and by adhesions between the pancreas and the omentum posteriorly. The neighbouring mucosa shows considerable puckering, and the edge of the ulcer nearest to the pylorus has obstructed the orifice, the entrance of the pylorus consisting of a slit-like valvular opening.

The patient was a woman, aged 44, who died from peritonitis.

M.N. 3556. D.B. 4684. P.M.S. 467 Sept. 5, 1905. Mr. Southam.

STOMACH: Simple Ulcer, Perforation. 34 : 45 · 1
34 : 22

The stomach is of normal size. Its serous coat showed irregularly distributed injection of the finer blood-vessels, and is almost entirely covered with loosely-adherent coating of fibrin. On the anterior wall, situated about $1\frac{1}{2}$ inches above the greater curvature, near the middle line, is a small, clean-cut, rounded perforation, with a diameter of $\frac{1}{4}$ inch. This perforation is at the base of a circular ulcer somewhat less than a threepenny piece, with smooth sharp edges. What remains of the floor of the ulcer is apparently composed of serous coat alone. Through the perforation the contents of the stomach were passing into the general peritoneal cavity. On the posterior wall also, near the middle line of the stomach, but just below the lesser curvature, is another very similar ulcer more oval in shape. Its floor consists of serous membrane, but this is deficient at one small point below, and here a small perforation is observed. Near this perforation are the remains of firm fibrous adhesions to the surface of the pancreas. No eroded blood-vessel is seen in either ulcer. The stomach wall in the region of both ulcers is diffusely thickened and firmer than normal. The mucosa throughout is pale, and the état mamelonné well marked. No constriction has taken place in connection with the ulcers.

The patient was a girl, aged 20. She was admitted to the hospital as an urgency case, but was too ill for operation. At the autopsy there was found widely-diffused fibrino-suppurative peritonitis.

STOMACH: INFLAMMATORY CONDITIONS.

M.N. 1847. D.B. 1167. Oct. 29, 1890. Dr. Dreschfeld.

STOMACH; Acute Gastritis due to Alcoholism. 34 : 52 · 1 (87 · 1)

The specimen is a longitudinal vertical section of the stomach. The mucous membrane is very greatly thickened and thrown into large rugæ. There is no sign of ulceration. The mucous membrane seems to have been very much congested. The stomach is not dilated.

M.N. 3340. D.B. 3693. P.M.M. 1897, No. 93. Dr. Graham Steell.

STOMACH: Acute Arsenical Poisoning. 34 : 54 · 3 (87 · 4)

The following are the post-mortem notes:—Peritoneum, normal. Stomach, somewhat contracted, contains yellowish, semi-digested milk, having butyric acid odour. Walls of stomach extensively involved, especially the anterior and posterior. Mucous membrane, thickened, swollen, wrinkled and rugose in appearance somewhat resembling coarse velvet pile. The coats present red and dark-brown patches of hæmorrhagic exudation. The whole of the stomach is intensely congested. On both anterior and posterior surfaces there are irregular flakes, semi-transparent, dirty-white in colour, much resembling damp tissue-paper which had been irregularly detached. This gives an uneven coating of false membrane to almost all the mucous surface. No actual ulceration. No perforation. Towards the pylorus, along the lesser curvature, the mucous membrane is almost normal. The chief action of the arsenic was on the stomach. Duodenum congested and intestines otherwise normal. Thoracic organs normal.

Half a teaspoonful of white arsenic had been taken at 3 p.m. Patient died at 3-15 a.m. next morning. He was a male, aged 63.

M.N. 3479. D.B. 4361. March 13, 1905. Dr. Walker.

STOMACH ; Hourglass Contraction. Adhesions to Liver. 34 : 55 · 5
34 : 24

The specimen shows contraction of the stomach about the middle of the viscus. At the seat of contraction the lumen of the stomach was diminished to about $1\frac{1}{2}$ inches. The edges of the contracted part were thickened. There was no evident recent ulceration. Around the contracted part there are adhesions, some of which bind the wall of the stomach firmly to the liver. The cardiac end is considerably dilated.

The patient was a female, aged 22, with a 2 years' history of gastric trouble, and three severe attacks of hæmatemesis. At the autopsy the cardiac end of the stomach contained a large amount of mucus. The small intestine was very atrophic.

M.N. 3592. D.B. 4681. P.M.M. 746. Aug. 28, 1905. Dr. Judson Bury.

STOMACH : Necrotic Inflammations. 34 : 55 · 4

In the mucous membrane, in the region of the pylorus, is a dark necrotic-looking area of tissue surrounding the orifice over a zone about an inch wide. It is the seat of irregular shallow ulceration. This area was of a dark-brown colour with slight reddish tinge in places. One or two small shallow round ulcers are found along the greater curvature. There were no signs of recent hæmorrhage and no abnormal injection of the blood-vessels. There was some excess of mucus.

The patient was a female, aged 27, and was the subject of chronic Bright's disease. (See kidney M.N. 3510—51 : 52·2, large intestine M.N. 3526—35·4 : 54·3, and liver M.N. 3591—36·2 : 67·1.)

STOMACH: SPECIFIC INFLAMMATION.

M.N. 3463. D.B. 4320. Feb. 14, 1905. Mr. Ray.

STOMACH: Tuberculous Ulcer. 34 : 56 · 1
34 : 55 · 3

This specimen was taken from a case of miliary tuberculosis, in which the intestines, mesenteric glands, and bronchial glands were affected. In the mucous membrane on the posterior wall of the stomach is a small ulcer with raised swollen edges. The peritoneal surface showed infection of the lymphatics. (See lung M.N. 3462—25 : 56·2, and lung M.N. 3472—25 : 56·2.)

STOMACH: BENIGN TUMOUR.

M.N. 1890. D.B. 2951.

STOMACH: Myxomatous Polypus. 34 : 63 · 5

The specimen, which was obtained from a dissecting-room subject, shows a large pendulous tumour springing from the outer wall of the stomach near the pylorus. The outer surface of the tumour is smooth. On the cut surface are seen large numbers of small cysts, and the intervening tissue is somewhat cellular in appearance with areas of calcification.

STOMACH: MALIGNANT TUMOURS.

M.N. 1867.

STOMACH: Carcinoma. 34 : 66 · 3
36 : 66 · 3

At the cardiac end of the anterior wall of the stomach a large irregular tumour has formed, about 2 inches in thickness at its thickest part, and composed of irregularly-projecting masses. Between these masses ulceration has taken place through the wall of the stomach, and involving the substance of the left lobe of the liver for a considerable depth, so that a large cavity has been formed in the hepatic lobe. The opening from the stomach into this cavity is an oblong rounded space measuring over 1 inch in its longest diameter. A section of the liver has been made to show the dimensions of this cavity. The walls of the cavity are composed of fairly smooth nodular tissue, very similar in appearance to the surface of the tumour in the stomach.

Microscopic section:—The tissue consists of a columnar-celled carcinoma. The cells are arranged in the form of glandular acini, with papillary processes. The matrix consists of a delicate fibrous reticulum containing many blood-vessels.

M.N. 1868. D.B. 670. March, 1888. Dr. Blore.

STOMACH: Carcinoma. 34 : 66 · 4

The specimen is the lower half of the stomach. On the line of the greater curvature is a round fungating mass, measuring about $1\frac{1}{2}$ inches in diameter, rising for about $\frac{1}{2}$ inch above the level of the mucous coat. The surface of the mass is somewhat irregular, but there is no ulceration. There is a small outgrowth about the size of a pea, which has formed in the neighbourhood of this. On the peritoneal aspect there has been some cicatricial formation close to the attachment of the omentum.

A microscopic section of the tumour shows that it has the structure of an adeno-carcinoma. Tall columnar cells are seen situated on delicate processes of connective-tissue in which the blood-vessels run. Portions of this tumour display excessive overgrowth of the epithelial elements.

M.N. 1869. Dr. Dreschfeld.

STOMACH: Carcinoma. 34 : 66 · 4

The specimen shows a small portion of the pyloric end of the stomach. Situated in the mucous membrane is a rounded growth, about the size of a five-shilling piece, which has the form of a crater with its central cone—the outer ridge projecting more above the surface than the central cone. In the near neighbourhood of the larger tumour there is a smaller one, about the size of a small cherry, which has a smoother surface, and presents a central stellate umbilication. The tumour is an adeno-carcinoma.

M.N. 1870. Dr. Ross.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 42 · 7
34 : 45 · 2

The specimen is a portion of the stomach wall, including the lesser curvature. Projecting downwards from the lining of this area is a rounded fungating mass, about the size of an orange. Portions of the surface have undergone ulceration.

The microscopic section shows an infiltration of the muscular coat of the intestine by epithelial tissue, composed of spheroidal cells with large nuclei, arranged in alveoli. A portion of the tumour presents the cells undergoing colloid degeneration.

M.N. 1871.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 25
34 : 27

Around the pyloric opening a well-defined ring of cancerous growth has formed. The growth is smooth on the surface, and has converted the opening into the duodenum into an irregular slit-like aperture. The wall of the stomach has apparently suffered from marked atrophy, and there has probably been dilatation.

M.N. 1872.

STOMACH: Carcinoma. 34 : 66 · 3

Situated at the pyloro-duodenal junction, there is an area of cancerous infiltration, which has led to a thickening in the wall and stenosis of the lumen.

Microscopical examination shows in the muscular layers of the wall the remains of cancerous alveoli lined by columnar epithelium.

M.N. 1873. D.B. 675. March 13, 1888. Dr. Byrne.

STOMACH: Carcinoma. 34 : 66 · 4

The specimen is the greater portion of the stomach, including the pyloric end. Situated in the line of the smaller curvature and towards the pyloric end of the stomach is a mass of fungating cancer, about the size of a fist. The mass is composed of a collection of partially separated processes. The surface of some of these has become somewhat broken up. The stomach wall is considerably atrophied. This tumour belongs to the variety adeno-carcinoma. There is a considerable amount of thickening on the serous surface opposite the site of the tumour.

M.N. 1875.

STOMACH: Lympho-Sarcoma. 34 : 65 · 9
34 : 45 · 2

In the pyloric segment the wall is occupied by a broad round tumour growth, which has caused a very striking amount of thickening of the wall, and at one point a large mass of the tumour has been ulcerated away.

On microscopic section the tumour is seen to consist of lympho-sarcomatous tissue, showing a fine fibrous reticulum, with small round cells in the spaces. The specimen has been imperfectly preserved.

M.N. 1876.

STOMACH: Carcinoma. 34 : 66 · 3

Around the pyloric opening there is a ring of tumour growth, which has developed particularly on its upper and posterior aspects. Here and there the surface exhibits commencement of the process of ulceration. The stomach wall is not hypertrophied.

Microscopic examination shows the tumour to be a carcinoma. There is a very considerable amount of fibrous matrix. The spaces in which the tumour cells lie are as a rule somewhat small, and the cells themselves are flattened against each other. In many of the alveoli they are necrosed. There is very little round-celled infiltration.

M.N. 1877. Mr. Southam.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 25

The walls of the stomach are thickened showing nodules of new growth, especially at the pylorus, where there is a circumferential thickening with somewhat irregular surface, and, as seen from the duodenum, in part almost papillomatous. Nowhere does it show ulceration. The pyloric opening is considerably obstructed and slit-like. A small nodule of new formation may also be seen in the muscular coat. The lymphatic glands are enlarged and indurated.

Microscopical examination proves the new formation to be a carcinoma of the scirrhus type.

The pylorus was removed during life by operation. (See *British Medical Journal*, 1882.) The patient died 12 hours after operation.

M.N. 1878. Dr. Renaud.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 45 · 2

The specimen exhibits a mesial section of the stomach, exposing the inner surface of the posterior half of the organ. About $2\frac{1}{2}$ inches from the pyloric valve there is a round ulcerated mass of tumour with a rough felted surface.

Round this, and extending over the greater part of the mucous surface, there has been a general thickening of the membrane due to infiltration by the cancer. The section of the wall shows, at some parts, hypertrophy of the muscle, and a very considerable thickening of the mucous membrane. A number of small nodules is seen in the lesser curvature on the peritoneal surface. At this part there is a general matting together of the tissues.

Microscopic section proves that the tumour is a carcinoma, and in the various coats there are scattered alveoli with fairly large epithelial cells. There is very little increase in stroma.

M.N. 1879. Dr. Dreschfeld.

STOMACH: Lympho-Sarcoma. 34 : 65 · 9
43 · 5 : 65 · 9

The wall of the pyloric portion of the stomach is thickened by tumour growth, and in the line of both the greater and smaller curvature, large masses of the secondary tumour growth are to be seen.

Microscopic section shows that the tumour consists of a fine reticulum, in the meshes of which are groups of round cells, most of which are of the small round-celled type.

M.N. 1880. Dr. Dreschfeld.

STOMACH: Carcinoma 34 : 66 · 3

The specimen shows one-half of the stomach has been cut in the coronal plane. The wall of the stomach in the greater part of its extent is much thickened, and the surface is thrown into well-defined ridges with deep sulci between them. There is no ulceration. The thickening is caused by infiltration of the stomach wall with cancerous growth.

A microscopic section shows that the tumour is very cellular in structure, the tissue being composed of masses of cells loosely packed together with an exceedingly small amount of a finely-fibrillated matrix. The cells are very large, and many of them show a distinctly marked vacuolation. The vacuole has been occupied by some substance which expanded the cell into a round bladder-shaped structure. The tumour is of the soft encephaloid type.

M.N. 1881. D.B. 273. P.M.M. 1884, page 509. March 22, 1886.

Dr. Dreschfeld.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 42 · 7
34 : 62

For description of this specimen see M.N. 1882. The two specimens are from the same stomach.

M.N. 1882. D.B. 273. P.M.M. 1884, page 509. March 22, 1886.

Dr. Dreschfeld.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 42 · 7
34 : 62

The specimen shows a vertical longitudinal section of the stomach. The stomach wall throughout is infiltrated with a hard carcinomatous growth. It is much more extensive at the pyloric end, and the thickening gradually diminishes towards the cardiac extremity. There was also slight ulceration of the mucous membrane at the pyloric end. On section it is seen that the growth has passed through the muscular coat, and has formed a thick layer in the smaller curvature, where infiltrated lymphatic glands can also be seen. A number of discrete nodules of secondary growth appear on the serous surface. The muscular coat is at this point very much hypertrophied.

Microscopically, the growth has the structure of a scirrhus; colloid degeneration had commenced.

M.N. 1883. D.B. 480. P.M.M. 1886, No. 26. March 2, 1887. Dr. Simpson.

STOMACH: Carcinoma. 34 : 66 · 3

The specimen is the stomach, the pyloric half of which is the seat of an infiltrating cancer. The stomach as a whole is very much contracted, and the wall is greatly thickened, partly by cancerous growth, and partly by contraction. The inner surface is very irregular, but there are no distinct areas of ulceration. Marked contraction of the pyloric lumen was observed at the

autopsy. At various points on the serous surface secondary growth has occurred. A flat nodule is seen at the cardiac end, and the line of attachment of the great omentum is the site of considerable matting of the tissues and of the formation of small round nodules. There are no other secondary growths. The pharynx and œsophagus showed masses of white growth.

Microscopically, the growth is a glandular carcinoma.

The patient was a female, aged 42.

M.N. 1884.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 45 · 2

The pyloric region shows a deeply excavated ulcer with irregular thick edges, the result of a cancer whose growth has thickened the adjacent portion of the mucous membrane of the stomach.

M.N. 2718. D.B. 3677. March 8, 1898. Mr. Wright.

STOMACH: Carcinoma. 34 : 66 · 3
34 : 62
34 : 25
38 : 55 · 1
38 : 55 · 7

The specimen is a vertical longitudinal section of the stomach from œsophagus to duodenum. At the pyloric end of the stomach a tumour is situated, and it has caused enormous thickening in the mucous membrane, and has reduced the lumen here to a mere line. This thickening extends for a considerable distance along the wall of the stomach, particularly along the line of the lesser curvature. The muscular coat at the site of the tumour growth is very much hypertrophied except at a point in the upper wall immediately beyond the pylorus, where it has almost completely disappeared. Great thickening of the peritoneum and sub-peritoneal tissue has occurred in the angle of the pyloro-duodenal junction, and outside the muscular coat in the lesser curvature. Here also two definite tumour nodules are situated. The mucous membrane is thickened and rugose at the pyloric end of the stomach, whereas in the cardiac segment it is thin and atrophied. Posteriorly the stomach wall is adherent to a coil of small intestine. The growth is a scirrhus carcinoma.

M.N. 2805. D.B. 4014. P.M.S. 254. Oct. 30, 1902. Mr. Thorburn.

STOMACH: Carcinoma. 34 : 66 · 4
34 : 91

The jejunum is attached to the stomach by sutures, and a communication has been established by operation. The specimen has been prepared to show the irregular nodular growth in the wall at the pylorus. It is pale and firm, and has ulcerated on the surface.

The microscopical examination shows the structure of a columnar-celled carcinoma.

There were no metastases. The operation was undertaken for pyloric stricture.

M.N. 2815. D.B. 4031. P.M.M. 365. Jan. 13, 1903. Dr. Dreschfeld.

STOMACH: Carcinoma. 34 : 66 · 3

A large mass of soft white growth encircles the cardiac orifice, leading to a partial stenosis of the œsophageal opening. The diameter of the lumen was $\frac{1}{4}$ inch, for $\frac{3}{4}$ of an inch in extent. The growth extends for a short distance along the lesser curvature and hangs into the cavity of the stomach. The surface of the growth is much ulcerated. The floor of the ulcer is soft and uneven, and there is a large nodular mass of growth on the posterior edge. There were no hæmorrhages. The stomach as a whole is small, and its walls are of normal thickness. The wall of the œsophagus is of about normal thickness. There were no secondary growths.

Microscopically, the tumour is a spheroidal-celled carcinoma with a moderate amount of stroma.

The patient, a female, aged 58, had an ovarian multilocular cyst of moderate size. There was brown atrophy of the heart, atheroma of the aorta, and acute pleurisy. The kidneys were very slightly granular. There was pronounced emaciation. There was a history of dyspepsia for 9 years.

M.N. 2816. D.B. 4044. P.M.M. 368. Jan. 6, 1903. Dr. Harris.

STOMACH: Carcinoma. 34 : 66 · 4

A large mass of new growth is seen at the cardiac opening. The lumen was impassable. The growth extends along the wall in the line of the smaller curvature. The surface is widely ulcerated. The wall of the stomach is thickened up to $\frac{3}{4}$ of an inch, and at one part there was a small intra-mural collection of pus. There was no perforation. The stomach was adherent to the upper border of the pancreas. The remaining mucous membrane was thickened and very rugose. The tumour was not detected by palpation. The liver was normal.

The patient, a male, aged 47, died of starvation. He was much emaciated.

M.N. 2828. D.B. 4081. P.M.M. 410. May 19, 1903. Dr. Judson Bury.

STOMACH: Carcinoma. 34 : 66 · 3

The stomach was very small, and the wall was much thickened throughout by new growth. The smaller curvature showed the most marked changes. There was no extension beyond the orifices. Towards the œsophageal end there was extensive ulceration, the base of the ulcer being honeycombed. The pylorus is intact, and not involved in the growth. There was no stenosis.

Microscopic examination showed the tumour to be a spheroidal-celled carcinoma infiltrating all the coats and provided with a finely cellular stroma. There were enlarged lymph glands along the inferior vena cava, and along the œsophagus, and also in the portal fissure. There were secondary growths in the liver. Brown atrophy of the heart had occurred, and there was abundant clear serous effusion in the peritoneum.

The patient, a male, aged 53, suffered from vomiting without hæmatemesis, emaciation and œdema of the lungs. There was 6 months' history of loss of flesh. (See lymph glands M.N. 2829—43·6 : 66·3.)

M.N. 3165. Mr. Montgomery.

STOMACH: Carcinoma. 34 : 66 · 3

The specimen consists of a portion of the stomach with the pylorus, removed by operation. The cavity of the viscus is in this region to a large extent occupied by a mass of carcinomatous growth springing from the mucous membrane. The surface of the growth is ulcerated and discoloured from hæmorrhage. At the lower part of the specimen a group of glands, the size of peas, can be seen, of a white opaque colour. The tumour has almost completely occluded the pylorus.

The patient was a man, aged 40 years, who had had symptoms of pyloric obstruction for 12 months. He was greatly emaciated. The operation of gastro-enterostomy was performed, and at the same time the growth was excised (Dec. 27, 1904). He was seen in Sept., 1905, and at that time was in good health, and there was no sign of recurrence.

M.N. 3172. D.B. 3463. P.M.M. 1896, No. 11. Sept. 9, 1896. Dr. Harris.

STOMACH: Carcinoma. 34 : 66 · 3

The stomach is small and cylindrical in form. On section nearly the whole of the wall is seen to be infiltrated with cancer. The mucous membrane is raised in mammillated form; but there is only slight ulceration on the surface. The wall as a whole is much thickened. There was no cardiac nor pyloric obstruction. The serous coat of the stomach and the mesentery showed nodules of cancer. There were no secondary growths in the liver. On the right pleural membrane there were some secondary nodules.

Microscopic examination shows the tumour to be a spheroidal-celled cancer. The tumour tissue shows a fine fibrous matrix, in the spaces of which are present spheroidal cells having no definite arrangement.

The patient was a female, aged 38.

M.N. 3277. D.B. 2184. P.M.M. 1893, No. 139. Sept. 19, 1893.
Dr. Graham Steell.

STOMACH: Carcinoma. 34 : 66 · 3 (42 · 7)

With the stomach and duodenum there is a mass of retro-peritoneal glands situated behind the duodenum. The stomach was found contracted, and the greater part of the wall was infiltrated with colloid carcinoma, giving a rough nodular appearance to the serous surface. The infiltrating tissue has the characteristic gelatinous appearance of colloid cancer. Internally the surface was found covered with small projecting masses which, in the area of the pylorus, caused obstruction of the lumen. The duodenum is not involved, but the intestines had a wasted appearance (atrophy). The mass of lymph glands lying behind the duodenum is of a soft cellular appearance, and some of the nodules have become disintegrated.

M.N. 3288. D.B. 4134. P.M.M. 459. Sept. 1st, 1903. Dr. Judson Bury.

STOMACH: Carcinoma. 34 : 66 · 4
34 : 45 · 2

The stomach is small in size and projecting on the mucous surface, in the lesser curvature, close to, but not involving, the pylorus, is a very large tumour with an ulcerated surface. The serous coat is normal.

The microscopic examination showed that the tumour is a columnar-celled cancer with a moderate amount of stroma.

M.N. 3293. D.B. 4253. P.M.M. 653. Nov. 4, 1904. Dr. Graham Steell.

STOMACH: Carcinoma. 34 : 66 · 4

At the pylorus, on the upper curvature, is a large area of very soft new growth with fairly well-defined borders. Its surface is deeply ulcerated in three places, and the whole covers an area somewhat larger than half-a-crown. No signs of hæmorrhage or of involvement of the peritoneum are seen. The stomach walls do not appear hypertrophied, nor is the cavity dilated. The contents were normal. The liver showed a large number of secondary growths.

The patient was a male, aged 62. (See liver M.N. 2955—36 : 66·4.)

M.N. 3320. D.B. 4602. P.M.M. 721. June 19, 1905.

STOMACH: Carcinoma of Pylorus. 34 : 66 · 3
43 · 5 : 66 · 3

The stomach was small, and its contents were normal. The pyloric region is the seat of an extensive, moderately prominent, area of new growth, having fairly well-defined margins, and an annular distribution. It ends at the pylorus, and extends fully 2 inches from there along the wall of the stomach. It has an eroded surface. On section the growth is seen to be of somewhat soft consistence and whitish colour. The muscular coat is hypertrophied in the pyloric region. A small lymph gland may be noticed near the pylorus; it shows a well-defined secondary growth.

Microscopic examination shows the growth to be a glandular carcinoma with a large amount of fibrous stroma.

The patient was a man, aged 47, who was brought in dead to M.R.I. (See lung M.N. 3379—41 : 27.)

M.N. 3332. D.B. 3462. P.M.M. 1896, No. 19. Sept. 18, 1896. Dr. Wilkinson.

STOMACH: Carcinoma. 34 : 66 · 3

The specimen shows the stomach, omentum, and transverse colon. The stomach is much contracted in size, and was found lying under cover of the costal margin and liver. The coats of the stomach are much thickened with infiltrating cancer, from the cardiac opening to within 1 inch of the pylorus. There was some obstruction at the pylorus. The gastro-colic omentum is much shortened, so that the transverse colon is brought close up to the stomach, and the great omentum is also considerably contracted. The serous surface of the stomach shows several nodules, and secondary nodules have formed over the smaller curvature. There were no secondary growths in the liver, lungs, or any situations other than those mentioned.

The patient complained of a tumour for about 9 months. She suffered from sickness, pain and emaciation. She was 63 years of age.

M.N. 3414. D.B. 3289. Dec. 11, 1899. Dr. Dixon Mann.

STOMACH ; Colloid Cancer. 34 : 66 · 3 (: 42 · 7)

A large cancerous mass occupies the lower end of the œsophagus and the cardiac end of the stomach. The surface of the tumour is widely ulcerated, and presents a large number of processes showing the characteristic gelatinous appearance of colloid degeneration. The lymph glands in the neighbourhood were enlarged, and display secondary growth with characters similar to those of the primary tumour.

Microscopic examination shows that the stroma of the growth is in the shape of a very finely-divided reticulum enclosing epithelial cells in a state of advanced colloid degeneration.

M.N. 3436. D.B. 4567. P.M.M. 717. May 27, 1905. Dr. Dreschfeld.

STOMACH ; Carcinoma. 34 : 66 · 3
38 : 54 · 2
38 : 55 · 1

The stomach shows a fibrinous layer of deposit on its peritoneal surface and a considerable amount of congestion. The cavity of the stomach is small. The upper curvature in the pyloric region is the seat of a diffuse nodular, pale, firm growth, which is widespread and does not specially affect the pylorus. There is a shallow ulcer, about the size of a half-crown. The muscular coat at the pylorus is hypertrophied, and the submucous and subserous coats are thick and white.

Microscopic examination shows that the submucous and muscular coats are infiltrated by delicate processes of epithelial growth which have proceeded from a scirrhus growth in the mucous membrane.

The patient was a male, aged 61. (See heart M.N. 3435—12 : 41, and peritoneum M.N. 3437—38 : 66·3.)

M.N. 3505. Dr. Stanmore Bishop.

STOMACH: Carcinoma. 34 ; 66 · 3 (42 · 7)

The pylorus is the seat of cancer. The wall is greatly thickened, chiefly by tumour growth which has occurred in the mucous membrane, also by hypertrophy of the muscular coat. It has caused great obstruction of the lumen of the pylorus.

Microscopic section shows that the tumour is an adeno-carcinoma, beginning in places to show colloid degeneration.

M.N. 3508. D.B. 4659. P.M.M. 738. July 28, 1905. Dr. Harris.

STOMACH: Carcinoma. 34 : 66 · 3

The stomach was slightly distended. On its hinder surface was a small area of firm, fibrous adhesions uniting it to the posterior wall of the lesser peritoneal sac, and in the middle of these adhesions is a fairly large irregular perforation. On opening the stomach there is seen a very large irregularly and sinously outlined ulcer with swollen, firm, red nodular margins, and with an irregular base of varying depth. On the posterior wall it has perforated into the peritoneal cavity, and in a few other places the floor is very thin. The growth has a somewhat annular distribution; it lies in the middle line of the stomach, somewhat nearer the pylorus than the cardia. It affects mostly the greater curvature and the posterior wall. The lesser curvature is free from it. The pylorus is normal. The gastric contents showed nothing unusual.

Microscopic examination showed that the tumour is of the scirrhus type.

The patient was a male, aged 32. Pain and vomiting began 2 months before his death, and these had followed a "twist in his side" while unloading a cart. Vomiting continued, and he became emaciated to a marked degree, and died from exhaustion. At the autopsy there were found secondary deposits in the portal glands and in the liver and lungs. The perforation above referred to had set up sero-purulent peritonitis.

M.N. 3637. D.B. 3919. Mr. Wright.

STOMACH and MESENTERY: Melanotic Sarcoma. 34 : 65 · 5
38 : 65 · 5

The stomach has been opened to show a rounded fungating mass of melanotic sarcoma situated in the line of the greater curvature towards the cardiac end. Above the stomach is suspended a small portion of the mesentery, in which a rounded nodule of the same growth is situated. (See heart M.N. 3636—12 : 65·5.)

M.N. 3696. D.B. 4787. P.M.M. 786. Dec. 21, 1905. Dr. Wilkinson.

STOMACH: Carcinoma. 34 : 66 · 3

The organ is of normal size, and its outer aspect shows nothing abnormal; there were no signs of recent or old inflammation on its serous coat. In the wall of the stomach there is seen a widespread area of new growth which has infiltrated the coat of the pyloric half, giving it a firm, tough, leathery feeling. The increase in thickness reaches its maximum of $\frac{1}{2}$ inch near the pylorus. The left limit of the growth is not visible, but could be easily detected by palpation as an irregular border running round the wall of the stomach about the middle line. The right limit corresponds with the pylorus (which is, however, only slightly thickened), but at one point it has encroached on the duodenal wall as a small reddish nodule, about the size of a cherry-stone. The growth is apparently equally distributed all round the circumference of the stomach in the affected area. The mucous membrane over the infiltrated region is of a brownish colour (due to necrosis), and shows evidence of diffuse hæmorrhagic extravasation of a reddish-purple colour; there are also signs of shallow ulceration. On the cut section of the affected portion of the wall the growth is observed to be situated in the mucosa and submucosa which have a homogeneous cream-white appearance. There is evidence of much hypertrophy of the muscular coat in this region, and delicate streaks of white tumour tissue invade this coat from the submucosa. The pyloric orifice admits a little finger. The œsophagus shows a peculiar white mottling near the cardiac orifice.

The patient was a male, aged 50, and had suffered from epigastric pain and vomiting after meals for the last 4 months, during the last 2 of which the vomiting was of a "coffee-ground" character. He had been losing flesh for 2 years. He died from gradual exhaustion. At the autopsy secondary deposits were found in the retro-peritoneal and mesenteric glands, but nowhere else.

M.N. 3705. D.B. 4795. P.M.M. 791. Jan. 13, 1906.

Dr. Harris and Mr. Wright.

STOMACH; Carcinoma, Gastro-Jejunostomy. 34 : 66 · 3
34 : 91

The stomach was moderately dilated, and was full of thin turbid, deeply bile-stained fluid. The serous coat is normal. At the site of the union of jejunum to stomach (gastro-jejunostomy) the operation area is healthy except for a slight subserous hæmorrhage and a small deposit of fibrin. On the mucous surface is seen a large mass of fairly firm white growth occupying the whole circumference of the pyloric region. The growth begins at the pylorus and has extended along the stomach wall for a distance of 4 inches. Its left border is well-defined and irregularly nodular. Its surface is greyish-white and uneven, but shows no sign of ulceration except at one point along the lesser curvature where there is a deep sinus-like excavation, and in this region the tissues have a more fibrous appearance than elsewhere. On the cut surface of the wall of the stomach, where the growth is situated, it is seen that the tumour is $\frac{1}{4}$ inch in depth in places, and has a homogeneous white appearance. The muscular coat is markedly hypertrophied.

Microscopic examination shows the tumour to be a glandular carcinoma.

The patient was a male, aged 22. There were no signs of secondary deposits.

M.N. 3721. D.B. 4841. Feb. 15, 1906. Dr. Dixon Mann.

STOMACH and LIVER: Carcinoma. 34 : 66 · 4
36 : 66 · 4
43 · 4 : 66 · 4

The stomach has been laid open by an incision along the greater curvature. In the line of the lesser curvature, not far from the pylorus, there is seen projecting into the cavity of the viscus a large egg-shaped tumour, regular in

form and with a somewhat felted surface. There was no pyloric obstruction. Between the stomach and liver may be seen a mass of enlarged glands situated on the peritoneal aspect of the smaller curvature. A glass rod has been placed in the œsophagus. The liver is studded with secondary nodules, which vary in size and appearance, some of them being distinctly more vascular than others. The less vascular nodules are in many instances surrounded by a zone of deeply bile-stained liver tissue. A portion of the diaphragm is seen at the upper part of the specimen, and attached to this is a very much enlarged lymphatic gland from the anterior mediastinum.

Microscopically, the tumour is a columnar-celled carcinoma.

The patient was a man, aged 28. He had pain after meals and vomiting, especially at night. The stomach was dilated, and the liver enlarged with nodules, which could be detected on palpation. The liver increased immensely in size in a few weeks, and the patient died from exhaustion.

STOMACH: OPERATIONS.

M.N. 3310. D.B. 4263. P.M.S. 407. Dec. 6, 1904. Mr. Wright.

STOMACH and SKIN OF EPIGASTRIUM; Gastrostomy. 34 ; 91

This specimen shows the stomach and skin of the anterior abdominal wall—the aperture of the gastrostomy is seen communicating with the cavity of the stomach. This operation was performed on a woman aged 28, suffering from pharyngeal stenosis. (See pharynx M.N. 3309—32 : 56·1.)

INTESTINE: CONGENITAL MALFORMATIONS.

M.N. 1891. D.B. 2885.

ANUS: Mal-development. 35·6; 12

The specimen shows the penis, scrotum, and perineal tissues, with rectum and bladder attached. The rectum opened into the bladder, but there is no opening to the outer surface.

M.N. 1895. D.B. 1304. July 24, 1891. Dr. Dreschfeld.

SMALL INTESTINE: Meckel's Diverticulum. 35·2; 12·3

The specimen shows a Meckel's diverticulum of the small intestine. There is a slight fold of mesentery between it and the small intestine.

M.N. 1897. D.B. 1378. Jan. 3, 1892. Dr. Graham Steell.

SMALL INTESTINE: Meckel's Diverticulum. 35·2; 12·3

On the border of the small intestine, opposite to the mesenteric attachment, is a sausage-shaped *cul-de-sac* about 6 inches long, of the same calibre as the small bowel, and ending in a rounded, smooth extremity.

M.N. 1898. D.B. 2287. Jan., 1894.

SMALL INTESTINE: Meckel's Diverticulum. 35·2; 12·3

The specimen shows a process from the intestinal wall, opposite the mesenteric attachment, and measuring about 2 inches in length.

M.N. 1899.

SMALL INTESTINE: Meckel's Diverticulum. 35·2:12·3

The specimen consists in a portion of the small intestine from the free edge of which there projects a Meckel's diverticulum, which shows a distinct bulbous extremity.

M.N. 3021. Mr. Collier.

LITTRE'S HERNIA (Hernia of Meckel's Diverticulum). 35·2:12·3
35·2:55·4

The specimen shows about 3 inches of the small intestine and a large Meckel's diverticulum about 5 inches in length springing from its unattached border. The wall of the diverticulum is thin, and the lumen expands considerably as it passes downwards. A dilated blood-vessel can still be seen in the wall. The intestine at the point of attachment is markedly discoloured, and is roughened with a deposit of inflammatory exudate. Close to the origin of the diverticulum is a pendulous mass of fat attached to the intestine.

The patient was a man aged 60 years, who had suffered from a right scrotal hernia for 20 years. The hernia had been reducible until 3 days before operation, when symptoms of strangulation were observed. The gangrenous Meckel's diverticulum was found twisted longitudinally at its junction with the small intestine, and adherent to the bowel, which was gangrenous at this point. Resection of the intestine was performed. Recovery was uneventful.

M.N. 3395. D.B. 3612. Mr. Burgess.

IMPERFORATE ANUS. 35·6:12·6

The specimen shows the genito-urinary and pelvic organs of a male infant. The anus is absent, and the rectum is seen ending as a blind extremity near the base of the bladder. The child lived for 3 days after birth.

M.N. 3410. D.B. 3623. Dec. 8, 1897. Dr. Fox.

ANUS: Atresia. 35·6:12·6
35·6:91

The specimen shows atresia ani, and the operation for its relief. The rectum is somewhat dilated, and ends as a *cul-de-sac* half an inch above the site of the anus.

M.N. 3585. D.B. 4442. May 10, 1905. Mr. Montgomery.

RECTUM: Teratoma. 35·5:14

The specimen consists of a rounded tumour, the size of a large walnut. The surface is comparatively smooth, and is covered with silky hair. The surface of section shows a myxomatous tissue in which nodules of cartilage are present.

Microscopically there is a somewhat irregular, squamous epithelium, covering the tumour. In the subcutaneous tissue are one or two groups of sweat glands, a few strands of non-striped muscle fibres, a good deal of round-celled tissue, a number of fat cells, stellate cells, and a large number of white, fibrous bands. There is also an area of somewhat cellular hyaline cartilage.

The patient was a woman aged 36 years, who had suffered from marked constipation for three years, with passage of mucus from the bowel. There had never been any pain nor hæmorrhage. The tumour could be felt attached by a distinct pedicle to the wall of the rectum. It was removed Nov. 22, 1904.

M.N. 3770. D.B. 4677. Aug. 8, 1905. Mr. Wright.

SMALL INTESTINE: Meckel's Diverticulum. 35·2:12

The Meckel's diverticulum springs from the lower part of the small intestine. It is about 3 inches long, and the lumen is almost as large as that of the bowel itself. The blind extremity of the diverticulum is attached by a narrow fibrous band to an adjacent portion of the bowel.

INTESTINE: MECHANICAL LESIONS.

M.N. 1901. D.B. 2942.

LARGE INTESTINE: Diverticulum. 35·4:27·1
83:41

A large, oval, aneurysm-like sac protrudes on the peritoneal aspect. It is regular in outline. Its walls are thin and translucent, and obviously there is great deficiency of the muscular coat over its most prominent part. The mouth of the sac is wide and oval. The mucous membrane is normal.

M.N. 1902. Dr. Simpson.

SMALL INTESTINE: Intussusception. 35·2:23·3

The specimen is a portion of the small intestine with an intussusception half an inch long. It was probably formed in articulo mortis.

M.N. 1903. Mr. Turner.

ILEO-CÆCAL PORTION OF THE INTESTINE: Intussusception. 35·2:23·3

The specimen in this case has had the intussuscipiens everted, and it is seen that the lower end of the small intestine has passed through the cæcal ring. The mucous membrane of both parts of the intestine is practically normal.

M.N. 1904.

SMALL INTESTINE: Intussusception. 35·2:23·3

The specimen has not been laid open, but at the upper portion the small intestine can be seen entering the lumen of the lower portion, taking with it its mesentery of attachment, in which lie some enlarged lymphatic glands. There is no sign of peritonitis.

The patient was a child 5 years old.

M.N. 1905. D.B. 2929.

SMALL INTESTINE: Intussusception. 35·2·23·3
38:54·2

The entering bowel is seen extending down the intestine for about 8 inches. The outer layer of the intestine has been cut throughout its whole length to expose this. On the outer peritoneal surface there are some flakes of fibrin showing recent peritonitis. The intussusceptum does not show any signs of congestion or gangrene.

M.N. 1906. D.B. 2928.

ILEO-CÆCAL REGION OF THE INTESTINE: Intussusception. 35·2:23·3
35·2:54·3

The specimen shows that the lower end of the ileum has passed by intussusception into the upper end of the large intestine, in the lumen of which the process of intestine has formed a sausage-shaped mass bent at an angle, the convexity of which is at the mesenteric attachment of the bowel. The apex of the intussusceptum is congested and swollen, and shows on its surface flakes of lymph.

M.N. 1907. D.B. 2957.

INTESTINE: Ileo-Cæcal Intussusception. 35:23·3
35:52·1

The specimen shows the small intestine, the mesentery of which contains enlarged lymphatic glands. The small intestine can be seen entering the lumen of the large intestine, and forming an intussusception. Below, the lumen of the large intestine has been laid open until it shows the lower end of the intussusceptum which presents itself as a rounded globular termination of a mass which fills and expands the lumen of the large intestine for a distance of about 5 inches. The mucous membrane of the intussusceptum is rough and covered by a layer of exuded lymph.

M.N. 1908. March, 1883. Mr. Heath.

LARGE INTESTINE: Intussusception. 35·4:23·3

The rectum is laid open, and into the upper part of its lumen there projects from above a rounded mass which is seen to consist of an intussusception of the colon. The surface of this is covered by a deposit of lymph. There is no peritonitis.

M.N. 1909. D.B. 2948.

SMALL INTESTINE: Hernia. 35·2:23·2

This specimen shows the loop of small intestine enclosed in a patent inguinal ring from a case of hernia. The intestine above this ring is dilated, and that below is collapsed.

M.N. 1910. D.B. 2884.

INTESTINE: Internal Strangulation. 35·2:26·2
38:22

This loop of small intestine had passed through an opening in the mesentery. It is surrounded by a portion of intestine, which is thick and rough from inflammation. The loop which has passed through the opening, is dilated and roughened from peritonitis, but the inflammation has apparently been more severe over the surface of the constricting portion.

M.N. 1911.

INTESTINE; Internal Strangulation. 35·2:26·2

The specimen shows a strangulation of the small intestine near the ileo-cæcal valve by means of an adventitious band, which, before the loop of intestine had passed inside it, had been twisted two complete turns from right to left. A glass rod passes under the band at the point where the two ends are seen close together.

M.N. 1912.

SMALL INTESTINE: Internal Strangulation. 35·2:23·2
38:12
38:54·2

A rupture has formed in the mesentery, and through this a considerable loop of the small intestine has passed, and became more or less strangulated as a result. There are some small filaments of fibrinous deposit on the surface of the peritoneum covering the intestine.

M.N. 1913. D.B. 704. P.M.M. 887, p. 87. June 18, 1888.

SMALL INTESTINE: Strangulation. 35·2:26·2
PERITONEUM: Tuberculosis. 38:54·2
38·56·2

The specimen shows the lower part of the ileum and commencement of the large intestine. The patient had suffered from tuberculous peritonitis, and numerous miliary tubercles can be seen on the surface of the mesentery. A fibrous adhesion between two adjacent loops of small intestine had constricted a short loop of intestine. The intestine is very much dilated above the point of strangulation. At the point of strangulation it is markedly reduced in size. Below the strangulated portion the coils are collapsed. On the serous surface there is a considerable amount of recently deposited lymph. The recent acute peritonitis was found to be due in this case to a perforation some distance above the point of strangulation.

The patient was a female who was admitted June 13 and died June 16. There was some pleurisy and tuberculous broncho-pneumonia in left lung; also caseation of the bronchial glands, one of which had softened and caused tuberculous consolidation in the lung.

M.N. 1914.

SMALL INTESTINE: Strangulation by a Fibrous Band. 35·2:26·2
38:55·7
38:54·2

The specimen shows a portion of the small intestine. A fibrous band has formed along the mesentery, running apparently between the surface of one of the mesenteric glands and the sides of the intestine. A piece of intestine, which has passed inside this band, has strangulated that portion into which the band is inserted. The strangulated part is dark coloured, and there are signs of peritonitis in the neighbouring coils of intestine, in the shape of a recently deposited layer of fibrin.

M.N. 1915. D.B. 594. P.M.S. 1887, No. 1. Mr. Wright.

SMALL INTESTINE: Strangulated Inguinal Hernia. 35·2:23·2
35·2:26·2
35·2:54·2

This specimen was taken from a patient who had been operated on for strangulation of a hernia of the small intestine, and it consists of the loop of bowel which had lain in the hernial sac. At the post-mortem examination, it was found in the abdominal cavity, but lying close to the mouth of the hernial sac. It was congested, and showed, especially at the neck of the loop, a deposition of lymph. The lymph at this point was firm, and had led to an adhesion to each other of the ingoing and outgoing portions of the loop. Above the site of the hernia the ileum was dilated, while below, it was collapsed. The site of the hernia as regards the intestine was about $8\frac{1}{2}$ feet above the ileo-cæcal valve.

M.N. 1917. D.B. 847. June 20, 1888. Dr. Martin.

SMALL INTESTINE: Hernia. 35·2:23·2
35·2:55·7

The specimen shows the portion of the small intestine which was enclosed in a hernial sac. The piece of intestine involved is greatly dilated, and the serous surface is roughened by inflammation. From the same cause the adjacent loops of intestine have become adherent to each other.

M.N. 1920.

INTESTINE: Oblique Inguinal Hernia (Entero-epiplocele). 35·2:23·3
38·1:23·3

The preparation includes part of the pubic bone of the right side, with the adjoining portion of the abdominal wall, the inguinal canal, right testicle and spermatic cord. The inguinal canal is seen to be occupied by a large portion of the great omentum which protrudes for a considerable distance beyond the external ring, and conceals the spermatic cord, and, to a great extent, the testicle—the exposed portion of the latter is seen at the lower part of the preparation. The omental protrusion (epiplocele) has been exposed by dissection, and the various coverings of the hernia (exclusive of superficial fascia and skin) are well shown in the preparation. The hernial sac is thickened and well defined. Viewed from behind one of the coils of the small intestine is seen partially protruded (enterocele), together with the omentum (entero-epiplocele), through the internal abdominal ring, on the inner side of which the injected deep epigastric artery is shown. A portion of the colon is seen at the lower part of the preparation.

M.N. 1924. D.B. 264. March 15, 1886. Mr. Wright.

ABDOMINAL WALL: Umbilical Hernia. 35 (05·2) : 23·2
81 : 41

This specimen shows the hernial sac containing coils of small intestine. This has resulted from a protrusion of a considerable portion of the bowel, through an opening in the abdominal wall at the umbilicus. The skin covering the sac appears stretched and atrophied,and the dried up end of the umbilical cord remains *in situ*.

M.N. 1927.

UMBILICAL HERNIA. 35 : 23·2
81 (05·2) : 45

The specimen shows a section of the anterior abdominal wall in the region of the umbilicus. In the centre of this portion of the wall there is a large swelling, the size of an orange, rounded in form, representing the protrusion of the wall by a hernial process of the peritoneum. By transmitted light it is seen that the wall of this sac is not of equal thickness. The skin and subcutaneous tissue around the base seem to be normal. As it passes forward it becomes smooth and atrophied, and has begun to ulcerate at the most prominent part of the sac. The opening into the sac is rounded, and measures about 1 inch in diameter.

M.N. 1935.

FOREIGN BODY IN INTESTINE. 35 : 28
35 : 22

The specimen is a coil of small intestine, with an extensive perforation of its walls, due to the angular piece of tin seen in the most dependent portion.

M.N. 1936. D.B. 1429.

SMALL INTESTINE: Rupture from Accident. 35·2 : 21·7

The loop of intestine shows about its middle portion a tearing-out and separation from the mesentery of the peritoneal muscular coats. These form two separate horse-shoe shaped extensions of the wall, separated from each other, except at their attachment to the uninjured intestine, where they come together again in the normal relationship. On the convexity of the muscular loop there is a rupture 1—2 inches in length.

The patient was a boy who suffered from a fractured pelvis.

M.N. 1940. Aug. 1883. Dr. Dreschfeld.

RECTUM: Diverticulum. 35·5:27·1

The mucous membrane of the rectum is very much folded, and the lumen shows irregular bulgings. A section has been made through one of these expansions which has the form of a thin walled (non-muscular) diverticulum. Similar diverticula were found in the lower part of the sigmoid flexure, and perforation had occurred in one of them, leading to suppurative peritonitis.

M.N. 2266. Aug. 30, 1893. Mr. Stanmore Bishop.

SMALL INTESTINE: Richter's Hernia. 35·2:23·2

A pouch projecting from the side of the ileum was constricted in the sac of a femoral hernia. Another loop of intestine occupied an interstitial sac in the abdominal wall.

The patient had suffered from femoral hernia for 40 years. It had been irreducible for the last 6—7 years. Symptoms of strangulation had set in 4 days before operation.

M.N. 2268. Mr. Stanmore Bishop.

DESCENDING COLON: Chronic Intussusception. 35·4:23·3

A portion of the descending colon is involved in the intussusception. The mucous membrane has been the site of an extensive fibrinous inflammation, which gives the surface a very ragged appearance. The mucosa is much congested and swollen. A glass rod has been passed through the lumen.

The patient, a female, aged 33, noticed a lump in the left side, at her confinement, 9 months before examination. She had complained for 7 weeks of pain; constipation alternated with diarrhœa for 4 weeks; there was no passage of blood; there was occasional vomiting; a hard, elongated mass was felt in the left lumbar and iliac regions. Maunsell's operation was performed on April 3, 1894. Death took place within 12 hours.

M.N. 2269. Mr. Stanmore Bishop.

FOREIGN BODIES. 35:28

Safety pins passed per anum. The pins were swallowed by the patient, a woman aged 40, while she was in a faint.

M.N. 2274. D.B. 4608. Mr Stanmore Bishop.

SMALL INTESTINE: Ileo-cæcal Intussusception (removed by operation). 35·2 : 23·3

The intestine shows necrosis and membranous exudation on its mucous surface.

The patient was a boy, aged 10 months. Only a small amount of blood passed per anum for four days before operation.

M.N. 2752. D.B. 3631. Nov. 23, 1897. Prof. Jones.

UMBILICAL HERNIA. 38·1 (05·2) : 23·2

The specimen shows the rounded protrusion of the abdominal wall which forms the sac of an umbilical hernia. The superficial skin is atrophied here and there, but there is no ulceration. The contents of the sac were the great omentum, part of which may still be seen.

M.N. 2924. Mr. Stanmore Bishop.

SIGMOID FLEXURE: Intussusception, Papilloma. 35·4 : 23·3
35·4 : 66·4

The specimen is a portion of the sigmoid flexure in the form of an intussusception. At the apex of the intussusceptum, and apparently leading it, is seen a papilloma. The outer surface of this specimen is composed of mucous membrane, and the body consists of the enclosed mass of bowel.

The patient, a male, aged 43, suffered from tenesmus with passage of mucus. There was no vomiting and no distension, but the intussusception could be felt high up in the rectum. Colotomy was performed, and the wound was closed 4 months later.

M.N. 3025. Mr. Wright.

STRANGULATED RICHTER'S HERNIA.

35·2:26·2
35·2:55·4

The specimen is a portion of the small intestine which has been resected. The bowel shows a localised bulging which formed a Richter's hernia, and it is marked off from the rest of the bowel by a groove. The whole of the lumen was not constricted in the hernial sac. A perforation has occurred at the bottom of the groove. The bowel was opened after the specimen had been removed, to examine its interior, and was then sutured.

The patient was a woman aged about 70 years, who was suffering from symptoms of strangulated femoral hernia. Resection of the loop of bowel was performed Dec. 15, 1902. The recovery was uneventful.

M.N. 3032.

SMALL INTESTINE: Gangrene.

35·2:23·2 (44·5)

The specimen is a portion of the small intestine. Two constricting grooves cross the bowel at a distance of $3\frac{1}{2}$ inches from each other, measured along the convex border. At the bottom of the groove the bowel is ulcerated, exposing the muscular coat. The portion of bowel involved has the appearance of gangrene. The surface is discoloured, rough, and dull, and is covered with shreds of lymph. The mesentery is swollen and œdematous.

M.N. 3080. Mr. Montgomery.

DOUBLE RICHTER'S HERNIA.

35·2:26·2
35·2:55·4

The specimen consists of a loop of bowel which has been resected. There are two small pouches springing from its wall almost at the same level. Each involves about $^2/_5$ths of the circumference of the bowel, and each is markedly constricted at its neck. The wall of the bowel is discoloured and its surface is covered with lymph.

The patient was a male aged 57, who was suffering from symptoms of strangulated inguinal hernia. The bowel was gangrenous and was resected. Death occurred on the same day.

M.N. 3148. Mr. Montgomery.

STRANGULATED INGUINAL HERNIA. 35·2:26·2
35·2:55·4

The specimen consists of a portion of the small intestine which has been resected. A small loop of gangrenous bowel is marked off from the rest by a deep constricting groove. The bowel in the floor of the groove is ulcerated at one spot, but is not perforated completely, and is discoloured.

The patient had suffered from symptoms of acute intestinal obstruction for 4 days. The loop of bowel was found strangulated in a pouch of peritoneum in the region of the cæcum. The bowel which was gangrenous was resected, and end to end suture was performed March 2, 1904. Death followed two days later from exhaustion.

M.N. 3168.

CÆCUM: Volvulus. 35·3:23·4

The specimen consists of a greatly dilated cæcum. On the upper border to the right the ileum is seen entering, and just behind is the vermiform appendix. To the left is the lower end of the adjacent colon. The cæcum itself is enormously dilated, and has assumed the shape of a stomach. Its walls are in a condition of gangrene which resulted from volvulus.

M.N. 3213. D.B. 4439.

SMALL INTESTINE: Intussusception. 35·2:23·3

The specimen consists of a portion of the small intestine which is the seat of an intussusception. The proximal part of the small intestine, with the puckered mesentery, has passed into the distal portion, distending it for a distance of about 4 inches. There is no peritonitis.

M.N. 3214. Mr. Wright.

OMENTUM: Hernia. 38·1:23·2

The large hernial sac is completely filled with a mass of adherent omentum. In one area the omentum is discoloured from old hæmorrhage.

The patient was a man aged 50 years. The hernia had been present for 20 years, and for the last 5 weeks had been irreducible. The sac with the contained omentum was removed and radical cure of the hernia was performed Sept. 22, 1904.

M.N. 3215. Mr. Wright.

HERNIAL SAC. 38·1 (05·6) : 23·2

The specimen consists of a very large hernial sac. The sac is somewhat constricted in the centre, and is a good deal discoloured from hæmorrhage.

The patient was a man aged 40 years. He had been ruptured for 15 years, and for the last 5 years the rupture had been irreducible. No truss had been worn. For the last year he had suffered considerably from indigestion and difficulty with the bowels. The sac was removed with its contents of adherent omentum from the left inguinal region, the omentum having previously been ligatured. Recovery was uneventful.

M.N. 3221. D.B. 4401. Mr. J. W. Smith.

SMALL INTESTINE : Intussusception. 35·3 : 23·3

The specimen shows an intussusception which has taken place at the ileo-cæcal junction. The ensheathing wall of bowel has been removed, and shows the discoloured roughened mucous surface of the involved gut. The vermiform appendix can be seen projecting along with the lower part of the ileum from the upper limit of the intussuscipiens.

The patient was a male child aged 7 months. There was a history of intestinal obstruction with vomiting and passage of blood and mucus for 4 days. The intussusception was 7 inches long, and could only be partially reduced. Resection of the bowel was performed. The child died from shock some hours later.

M.N. 3406. D.B. 2171. Oct. 13, 1893. Dr. Mackenzie.

SMALL INTESTINE : Intussusception. 35 2 : 23·3

The specimen consists of a portion of the small intestine, the seat of a large sausage-shaped invagination (intussusception). A portion of the ensheathing layer of bowel has been removed. The mucous membrane is in a state of diphtheritic inflammation.

M.N. 3481. D.B. 4325. Feb. 15, 1905. Mr. Montgomery.

ILEO-CÆCAL SEGMENT OF THE INTESTINE: Intussusception. 35·2:23·3 35·2:54·2

The cæcum has been opened and everted to show the intussusception. Glass rods are placed in the lumen of the ensheathing bowel (intussuscipiens). A portion of the ileum, together with the appendix, and its mesentery, forms the intussusceptum. On the mucous surface of the intussusceptum there is a layer of pseudo-membrane from inflammation. The specimen was removed by operation.

M.N. 3562. D.B. 4664. July, 1905. Mr. Platt.

SMALL INTESTINE: Internal Strangulation. 35·2:26'2

The specimen consists in a short segment of the small intestine, which shows in the form of an angle the portion which was involved in an internal strangulation by a band. The part included in the strangulation has a thin, wrinkled, necrotic appearance, but the part where the band was applied is thick, rough, congested, and broken. The remaining portion of the intestine is thickened and congested.

M.N. 3574. D.B. 3625. Mar. 14, 1897. Mr. Montgomery.

INTESTINE: Intussusception at the Ileo-cæcal Junction. 35·3:23·3 35·3:63

The specimen shows that the intussusception had taken place at some distance above the ileo-cæcal junction, but the valve forms a constricting ring to the mass. The coats of the gut which form the envelopes of the intussusception have been cut open, and there is seen in the midst of the mass, but some way above the free end, a piece of the small intestine with very greatly thickened walls. In the centre of the area of thickening a moderately large polypus springs from the mucous membrane.

M.N. 3651. D.B. 3946. P.M.M. 151. Oct. 9, 1901. Dr. Wilkinson.

LARGE INTESTINE: Idiopathic Dilatation. 35·4:27·2

The specimen consists of the lower portion of the small intestine and the whole of the large intestine. The large intestine is enormously dilated, especially at the sigmoid flexure and the rectum. The wall is not thinned. At the post mortem this bowel occupied the whole of the front of the abdomen. There were no signs of obstruction to the lumen of the bowel.

The patient was a boy, aged 9.

INTESTINE: CHEMICAL LESIONS.

M.N. 1937. D.B. 1963. May, 1886. Dr. Dixon Mann.

SMALL INTESTINE: Carbolic Acid Poisoning. 35·1 : 29·1
35·1 : 55·4

The mucous membrane is enormously swollen, and the valvulæ conniventes project fully a quarter of an inch into the lumen of the intestine. The carbolic acid has caused bleaching and necrosis of the surface. (See stomach M.N. 1835—34 : 29·1.)

M.N. 3424. D.B. 4373. P.M.M. 710. Apr. 26, 1905. Dr. Reynolds.

LARGE INTESTINE: Mercurial Poisoning. 35·4 : 29·1 (87·5)
35·4 : 52·2

The mucosa throughout is bright red, injected, and somewhat swollen, and the lymph follicles are enlarged, while here and there (especially in the transverse colon) are several small, shallow, greyish ulcers of irregular shape. (See stomach M.N. 3567—34 : 29·1, small intestine M.N. 3590—35·2 : 29·1, and kidney M.N. 3434—51 : 87·5.)

M.N. 3590. D.B. 4373. P.M.M. 710. Apr. 26, 1905. Dr. Reynolds.

SMALL INTESTINE: Mercurial Poisoning. 35·2 : 29·1 (87·5)
35·2 : 52·2

The specimen shows a portion of the small intestine. There is a general injection, and a slight amount of swelling of the mucous membrane, but the lesion is very slight compared with that met with in the large intestine. (See stomach M.N. 3567—34 : 29·1, large intestine M.N. 3424—35·4 : 29·1, and kidney M.N. 3434—51 : 87·5.)

INTESTINE: CIRCULATORY DISTURBANCES.

M.N. 3386. D.B. 2701. P.M.S. 1892, No. 140. Mr. Hardie.

DUODENUM: Hæmorrhage in the Wall and extending between the layers of the mesentery. 35·1:33 38:33

The mucous membrane of the duodenum was dark red in colour from congestion. There was no ulcer and no tumour. The hæmorrhage had dissected off the serous from the muscular and mucous coats of the duodenum, and from this point the blood had infiltrated the mesentery, and separated the two layers over a large part of its extent. A collection of blood forms a large, rounded tumour in the wall of the duodenum.

The patient was admitted with signs of intestinal obstruction. He was mentally unsound, and there was no proper history obtainable. He died suffering from fæcal vomiting. There was nothing abnormal elsewhere.

M.N. 3720. D.B. 4858. Dr. Edge.

SMALL INTESTINE: Hæmorrhagic Infarction. 35·2:36·1

The specimen was taken from the upper end of the jejunum, about 6 feet of which showed the same condition. The coats of the intestine are infiltrated with blood. As a result of the extravasation the valvulæ conniventes are swollen and discoloured. A thick layer of blood may be seen between the mucous and muscular coats, and under the serous coat there is also extensive extravasation.

Microscopic examination shows that the greater portion of the extravasated blood is situated between the muscular coat and the muscularis mucosa. There is a very marked infiltration of all the coats with leucocytes. The patient suffered from cirrhosis of the liver of the polylobular type. There was marked jaundice but no ascites. The infarction involved the mesentery itself, but no localised thrombosis or embolism could be found as a cause of the infarction.

The patient was a female, aged 33. The histological examination of the liver showed that there were very few bile ducts in the thick strands of fibrous tissue which had formed. The bile capillaries were engorged with bile.

INTESTINE; RETROGRESSIVE DISORDERS.

M.N. 1863. D.B. 348. P.M. 1884, p. 589. July 20, 1886. Dr. Simpson.

DUODENUM: Chronic Ulcer and Perforation. 35·1:45·1
35·1:22

The specimen shows a portion of the stomach and upper part of the duodenum. Just beyond the pylorus there is a half-moon shaped ulcer which perforates the wall of the intestine. The peritoneal opening is somewhat smaller in size than that of the mucous membrane, and is more circular in form, and on the peritoneal surface near, there is a considerable amount of recently-deposited lymph. The base of the ulcer was not adherent to the surrounding parts. Besides the ulcer there was a small pouch projecting backwards about 1 inch broad and $\frac{1}{2}$—$\frac{3}{4}$ inch deep.

The patient was a robust adult of 26 years of age. He died the day after admission. The peritoneal cavity showed peritonitis due to the escape of fæces.

M.N. 1864. D.B. 2941. Dr. Dixon Mann.

DUODENUM: Ulceration following Burns. 35·1:45·1

The specimen shows an irregular folding of the mucous membrane of the duodenum due to inflammatory swelling. A few superficial erosions may be observed on the surface.

M.N. 2773. D.B. 3734. Oct. 25, 1898. Mr. Wright.

DUODENUM: Acute Perforating Ulcer. 35·1:45·1
35·1:22

The specimen consists of about 6 inches of the duodenum with a portion of the pancreas attached. The mucous membrane of the duodenum is very much swollen, and at its commencement on the posterior aspect, there is a small, lenticular-shaped perforation, about $\frac{1}{2}$ inch in length. Around this opening on the outer surface a good deal of lymph has been deposited.

M.N. 2819. D.B. 4054. P.M.S. 292. March 20, 1903. Mr. Collier.

DUODENUM: Simple Ulcer. 35·1:45·1

An oval ulcer, the size of a shilling, is situated in the first part of the duodenum, close to the pylorus. The margins are prominent and rounded but not everted. It is moderately deep. The floor is friable. It had perforated during life, and had been stitched up. The stomach is normal.

The patient, a man aged 42, died from acute peritonitis.

M.N. 3026. Mr. Platt.

INTESTINE: Gangrene from Strangulated Hernia. 35·2:44·5
38:54·2

The specimen shows 12 inches of gangrenous intestine resected. The wall of the bowel is dull, dark reddish brown in colour, and thickened. Its surface is covered with lymph. The mesentery is infiltrated and thickened.

The patient was a man aged 46 years, who had suffered from rupture for 15 years. The hernia had always been reducible till 10 hours before operation, when severe symptoms of strangulation commenced. Operation was performed April 6th, 1904, the gangrenous bowel being resected and sutured end to end. Recovery was uneventful.

M.N. 3256. D.B. 3316. P.M.M. 1895, No. 110. Jan. 14, 1896.

DUODENUM: Healed Ulcer. 35·1:45·1

The specimen shows an ulcer situated at the junction of the stomach and duodenum. The ulcer is healed, the floor is smooth, and the edges are bevelled; but the mucous membrane is incompletely restored.

The patient was a female, aged 42, who died from heart failure with bronchitis and emphysema.

M.N. 3278. D.B. 3618. P.M.S. 1896, No. 127. Jan., 1898.

DUODENUM: Perforating Ulcer. 35 · I : 45 · I
35 · I : 22

On the anterior wall of the duodenum, just beyond the pylorus, is a small, round ulcer, of the diameter of $\frac{1}{2}$ inch, with smooth edges. It has perforated through into the peritoneal cavity. Another somewhat smaller ulcer is seen on the posterior wall about the same level, and this has also perforated. The mucous membrane round the ulcers is a little thickened and puckered.

The patient was a male aged 26, who died 15 minutes after admission to the M.R.I. At the autopsy general suppurative peritonitis was found.

M.N. 3312. D.B. 4601. June 19, 1905.

PYLORO-DUODENAL JUNCTION: Ulceration with Perforation. 35 · I : 45 · I
35 · I : 22

Immediately beyond the pyloric valve are seen two ulcers, the larger of which has perforated the wall of the intestine. This led to general peritonitis of a suppurative character.

M.N. 3708. D.B. 4814. Feb., 1906.

DUODENUM: Simple Ulcer. 35 · I . 45 · I

In the mucous membrane of the duodenum, immediately beyond the pyloric valve, are seen two oval, deeply excavating ulcers, one of which (the upper) had led to perforation into the peritoneal cavity. This ulcer was closed by operation, one of the sutures being seen on its floor.

M.N. 3738. D.B. 4766. Dr. Walker.

DUODENUM: Simple Ulcer, Perforation. 35 · I : 45 · I
35 · I · 22

There is, immediately beyond the pyloric valve, an oval perforation in the wall of the duodenum. The edges of the opening are smooth and fairly sharp. There is a little congestion on the posterior aspect.

The patient, a man aged 18, complained of severe pain on the night of Sept. 30th. An exploratory incision showed the presence of fibrinous inflammation in the peritoneum. The youth had been ailing for a month or two with indigestion, but otherwise there was nothing noteworthy in his history.

INTESTINE; INFLAMMATION.

M.N. 1942. D.B. 699. P.M.M. 1881, No. 8. Nov. 28, 1881.
Dr. Dreschfeld.

COLON: Uræmic Ulcers. 35·4:55·3(88)

The mucous membrane is the site of follicular inflammation and ulceration. The follicular inflammation is shown by the great number of minute pin-point swellings. In the lower part of the intestine especially, ulceration had taken place. The ulcers are of irregular shape and have a serpiginous outline. In some cases the floor of the ulcer was of an ashy-grey appearance, and in others cicatization has taken place. The heart was dilated and hypertrophied, and the kidneys were small and granular. Death was from uræmia.

The patient was a female.

M.N. 1943. D.B. 961. P.M.M. 1889, No. 102. Dec. 9, 1889.

SMALL INTESTINE: Follicular Enteritis 35·2(42):55·1

The solitary follicles in the mucous membrane are swollen, and stand out prominently on the surface. The patient suffered at the same time from chronic parenchymatous nephritis, pleurisy and peritonitis. He was a young adult male, and had given way to excessive drinking. The peritoneal cavity contained turbid white fluid in which floated flakes of fibrinous lymph.

M.N. 1944.

LARGE INTESTINE OF A CHILD: Follicular Enteritis. 35·2(42):55·1

The mucous membrane is not much thickened, but its surface is covered with innumerable small, round granules, which have been formed by the swelling of the solitary lymphoid follicles.

M.N. 1945.

LARGE INTESTINE : Ulcerative Colitis. 35·4 : 55·3
35·4 : 55·4

This specimen shows a portion of the large intestine of a child. The mucous membrane is thickened throughout, and the surface is studded with punched-out ulcers about the size of a pin's head. Yellowish pin-point areas of necrosis are to be seen here and there amongst the ulcers. The necrotic action is especially marked in the mucous membrane lining the fossæ which are found in the intestine. There is no sign of peritonitis.

M.N. 1946. D.B. 2890.

LARGE INTESTINE : Follicular Enteritis. 35·4 (42) : 55·1

The specimen consists of a small portion of the large intestine. The mucous membrane is thickened throughout, and the surface is studded with small, punched-out ulcers, uniform in size, and of the dimensions of a large pin-head.

M.N. 1948. D.B. 1206. P.M.M. 1889, p. 596. Feb. 21, 1891.
Dr. Graham Steell.

LARGE INTESTINE : Follicular Enteritis. 35·4 (42) : 55·1

The intestinal wall is not much thickened, but the solitary follicles are distinctly swollen, and stand out from the surface as rounded nodules closely packed together in some parts. The small intestine was congested, and showed the same swelling of the solitary follicles, especially at the lower end of the ileum.

The patient was a female adult, and showed extensive infiltration of the heart with fat; otherwise there were no lesions.

M.N. 1955. D.B. 980. Jan. 9, 1890. Dr. Frakes.

LARGE INTESTINE: Ulcerative Colitis. 35·4:55·3

The specimen consists in a short portion of the colon. Its mucous surface shows very numerous irregular areas of ulceration; the majority of these are small and punched-out in appearance. The edges of the ulcers are undermined, and the floor of the larger ulcers is crossed by interlacing trabecular tissue. This is a condition of ulcerative colitis associated with a colloid carcinoma of the large intestine. (See large intestine, M.N. 1983—35·4: 66·3.)

M.N. 2263. D.B. 4613. Mr. Stanmore Bishop.

APPENDICITIS WITH CONCRETION. 35·3:52
35·3:43

The appendix shows a concretion of fæcal matter in its lumen. The distal extremity is distended but the rest of the tube is atrophied. It was firmly bound down by adhesions.

The patient was a female aged 19. The first attack was in June, 1902, and the second in May, 1903. The appendix was removed in June, 1903.

M.N. 2276. D.B. 4610. Mr. Stanmore Bishop.

CÆCUM AND APPENDIX: Appendicitis with Perforation. 35·3:55·3
35·3:22

There are two points where perforation has occurred. There was a hard fæcal concretion in the appendix.

The patient was a female aged 19, and gave a history of 14 days illness. The abscess was opened, and drained, but death followed in 24 hours.

M.N. 2298. D.B. 4620. Mr. Stanmore Bishop.

APPENDICITIS (CATARRHAL). 35·3:52·1

At the operation the appendix was found to be hard and rigid from inflammatory thickening of its walls.

M.N. 2706. D.B. 1188. P.M.S. 1887, p. 500. Jan., 1891. Mr. Southam.

LARGE INTESTINE: Ulcerative Colitis. 35·4:55·3

The mucous membrane is markedly thickened, but it has been subject to extensive ulceration, and over a considerable portion the surface layers have been denuded by the process. The remains of the mucosa are seen as irregular, somewhat polypoid masses, some of them existing as small isolated islands in the area of ulceration.

M.N. 2804. D.B. 4013. P.M.M. 340. Oct. 30, 1902. Dr. Dreschfeld.

LARGE INTESTINE: Ulcerative Colitis. 35·4:55·3

The intestine is somewhat thickened. The serous coat is normal. The walls were very soft and friable, especially along the transverse colon. The mucous membrane is studded with numberless small ulcers, the largest having the diameter of $\frac{1}{2}$ inch. Some are confluent, and others have a honeycombed appearance. All are shallow, and the edges are not markedly thickened. There is no surrounding congestion, nor are there adherent sloughs. The intervening mucous membrane is congested and hæmorrhagic, and has a nodulated and polypoid appearance. In the transverse colon very little healthy mucous membrane remains.

Microscopically, the wall showed abundant round-celled infiltration through the whole thickness of the mucous coat, which in places obscured the glandular structure. There was marked thinning in places where the epithelium of the glands had disappeared. Some of the gland tubes were only partially destroyed. Others were dilated and contained swollen and degenerated cells. Round-celled infiltration of the submucosa had occurred to a less extent. Increase of fibrous tissue had occurred in parts which were becoming polypoid. The muscular coat was little affected. It was partly necrosed but not otherwise markedly degenerated. The spleen weighed $2\frac{1}{2}$ ozs. There was three months' history of diarrhœa. The stools were liquid and contained blood and mucus. There were abdominal pains and slight pyrexia.

The patient died from exhaustion.

M.N. 2820. D.B. 4061. P.M.M. 400. May 1, 1903. Dr. Wilkinson.

CÆCUM: Perforation from a Perityphlitic Abscess. 35·3:55·3
35·3:22
38:54·2

The mucous membrane of the cæcum was œdematous and catarrhal. A large perforation admitting easily the tip of the finger is situated $2\frac{1}{2}$ inches above the opening to the appendix, communicating with a large abscess cavity on the right side of the cæcum. It has smooth thin margins, and all the coats are equally involved in the ulcer. The peritoneum over the cæcum was much thickened and opaque, and formed the limiting membrane of the abscess cavity which was retro-peritoneal, and extended up behind the liver, through the diaphragm, into the base of the right lung. In the distal end of the appendix there was a hard concretion, the size of a cherry-stone. There was general fibrinous peritonitis, with commencing suppuration.

There had been an illness of 6 weeks' duration, with stoppage of the bowels. Cough and foul expectoration were observed before death, which took place from exhaustion.

M.N. 2850. D.B. 4120. P.M.S. 327. July 13, 1903.

COLON: Follicular Colitis. 35·4 (42):55·1

On the mucous surface there are a number of small white nodules slightly raised, none exceeding a grape-seed in size. They are of firm consistence, but not hard. The mucous membrane seems to be continuous over the nodules, except for slight depressions, over the most prominent of the inflamed follicles, appearing as minute circular or crescentic apertures. There are no distinctly marked ulcers. The mucous membrane showed catarrhal changes. The nodules can be seen from the peritoneal covering, but do not project on that aspect.

Microscopically, the solitary follicles show a dense small-celled infiltration. Where the follicle projects most, the small cells reach the surface of the mucous membrane. The small-celled infiltration has extended some distance into the submucosa. It has also surrounded Lieberkühn's glands in the immediate neighbourhood of the follicles. There was slight enlargement of the tonsils.

The child, a female, aged 9, was dead when she was brought to the Infirmary.

M.N. 2867. D.B. 4162. P.M.M. 493. Nov. 10, 1903. Dr. Dreschfeld.

CÆCUM: Ulcerative Colitis. 35·4:55·3

The walls of the bowel are very thin. The mucous membrane is the seat of innumerable, small, shallow ulcers, with slightly roughened margins. In two places perforation has occurred. Many of the ulcers are covered with opaque greyish-yellow flakes, which were easily detached.

Microscopical examination:—These flakes were found to consist of a fibrinous network, containing a moderate quantity of entangled round cells. There was some degree of leucocytic infiltration in the submucosa coat, and to a less extent in the mucous and muscular coats. The glandular epithelium showed widespread necrosis.

The patient, a male, aged 63, suffered also from chronic interstitial nephritis and cardiac failure. (See heart M.N. 2865—12:34·1, kidney M.N. 2866—51:62, and lung M.N. 2969—14·2:35·1.)

M.N. 2880. D.B. 4195. P.M.S. 362. Feb. 19, 1904. Mr. Collier.

RECTUM: Fibrinous Proctitis. 35·5:54·2
35·5:54·6

The lowest 2 inches are normal, but above this, extending for 10 inches up the bowel, the wall is thick and firm, like indiarubber. The serous coat has a deep-purple injected colour. There was no peritonitis. On section the walls were thick and the tissue, while free from pus, was of a deep-red colour. The mucous membrane was dark-brown, and irregularly nodular. The nodules have a finely granular surface, but are nowhere ragged or shaggy. There is a superficial dirty-grey layer of deposit scattered in patches, and firmly adherent. Several of the nodules are of the size of a plum-stone. The upper and lower limits of the lesion were well defined, in raised ridges, smooth and firm, running around the bowel. The lumen was markedly diminished throughout the affected segment. The cellular tissue between the rectum and the bladder was œdematous.

Microscopic examination showed thickening of the wall from inflammatory exudation. Leucocytes were present in great abundance. It was hæmorrhagic

throughout. There was a copious deposit of fibrin, especially in the mucous coat. The mucous layer is intact for the most part. The secretory cells are degenerated, and are surrounded by fibrin. There was no sign of tumour growth.

The patient was a female, aged 25. She was moribund when she came to the Hospital, and the clinical history was not fully ascertained.

M.N. 2991. Mr. Wright.

APPENDICITIS WITH CONCRETION.

35·3:55·7
35·3:43

The specimen shows the appendix much enlarged and curved. The lumen is dilated throughout, and on the convexity of the curve a window has been cut to show the presence of a fæcal concretion. The peritoneal surface is somewhat roughened as a result of adhesions.

The patient was a female, aged 30 years, with a 6 months' history of attacks of appendicitis. The last occurred 3 weeks before the operation, which was performed on March 10, 1902. Numerous adhesions were present. Recovery was uneventful.

M.N. 3024. Mr. Wright.

APPENDICITIS WITH ADHESIONS.

35·3:55·5
35·3:55·7

The specimen shows the appendix, a large part of which is buried in adherent omentum. A partial section of the wall, at a point before the appendix becomes buried, shows that there has been great thickening, accompanied by obliteration of the lumen. Where it is hidden the appendix bends at an acute angle, and its extremity is seen as a rounded knob at the bottom of a pit.

M.N. 3043. March 14, 1902. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:55·7

The appendix is coiled on itself in an S-shaped form, which is held in position by adhesions. There is roughening of the whole surface of the appendix, but this is most marked over its somewhat bulbous free extremity.

The patient was a boy, aged 13 years. The first attack of appendicitis was in December, 1901. A second attack followed in February, 1902, and lasted about a fortnight. The thickened tender appendix could be felt at the time of operation. Appendicectomy was performed March 14, 1902. Recovery was complete.

M.N. 3045. Sept. 17, 1901. Mr. Wright.

APPENDICITIS WITH CONCRETION. 35·3:52 35·3:43

The appendix is bent at an angle, about one-third along its course. At the angle it is very much swollen, and an incision along the convex border shows that this is due to a large concretion.

The patient was a man, aged 23 years. The appendix was removed by operation, Sept. 17, 1901.

M.N. 3046. March 28, 1902. Mr. Wright.

APPENDICITIS WITH CONCRETION. 35·3:52 35·3:43

The specimen shows the appendix laid open so that a long elliptical concretion may be observed in its lumen. The mucous membrane is thickened, and the whole structure has been buried in a mass of inflammatory tissue. The outer surface shows a good deal of discoloration from old inflammation.

The patient was a male, aged 19 years. There were during the last 5 years many slight attacks of abdominal pain and discomfort, never severe enough, however, to keep him in bed. Appendicectomy was performed successfully March 28, 1902. There were numerous firm adhesions.

M.N. 3050.

APPENDICITIS WITH CONCRETION.

35·3:52·2
35·3:43

The specimen consists of an appendix, which is somewhat dilated throughout. On the convex surface an incision has been made through the wall at a point where a fæcal concretion was lodged. The concretion, in two pieces, is seen at the bottom of the jar.

M.N. 3061. March 19, 1902. Mr. Wright.

APPENDICITIS WITH CONCRETION.

35·3:55·7
35·3:43

The specimen shows the appendix, which is considerably swollen in its proximal part. On the convexity a window has been cut to expose a mass of fæcal concretion in the lumen. An inflammatory adhesion at the tip has been cut after ligature. The exposed mucous membrane is somewhat thickened.

The patient was a man aged 22 years. There had been six attacks of appendicitis during the 15 years preceding the operation of appendicectomy, which was performed March 19, 1902. The thickened appendix could be indistinctly felt before the operation.

M.N. 3072. Mr. Wright.

APPENDICITIS

35·3:52·1

The appendix shows considerable dilatation of the lumen and thickening of the walls, and the cavity is more or less filled with inspissated débris. Inflammation has occurred also on the serous surface, causing it to be roughened and discoloured.

M.N. 3075. Mr. Thorburn.

APPENDICITIS WITH DILATATION.

35·3:55·5
35·3:27
35·3:55·7

The specimen shows an enlarged appendix measuring 3 inches in length and half an inch in diameter. Its lumen was distended with thick, clear, mucoid fluid, resembling white of egg. The peritoneal surface is roughened along the convex border, and adherent omentum is seen.

The patient was a man aged 33 years, who had a first attack of appendicitis

9 months previously. A second attack followed this 2 months later, and subsequently he suffered from almost continuous aching in the right iliac region, which was worse after exertion. The appendix could be readily palpated, and at the operation, May 17, 1904, firm adhesions were found around it. Recovery was uneventful. The lumen admits a small glass for a distance of $\frac{1}{4}$ inch, at which point complete stenosis is present.

M.N. 3077. Mr. Montgomery.

APPENDICITIS: Calculus, Gangrene. 35·3:55·3
35·3:43
38:54

The specimen is an appendix removed by operation. It is markedly thickened and dilated, and about one-third along its lumen a window has been cut to show a fæcal concretion, about half an inch in diameter. In the meso-appendix localized nodular swellings, probably lymphoid, are present, and a large swollen lymphatic vessel can be seen on the surface of the appendix. Two perforations in the wall of the appendix along the line of the meso-appendix are shown by glass rods.

The patient was a male aged 21 years. There had been no previous attacks. The illness began with vomiting and abdominal pain, and distension three days before operation. Vomiting had become stercoraceous. The bowels were constipated. An indefinite mass could be felt in the iliac fossa on rectal examination. The patient was suffering from general peritonitis and death occurred on the day after the operation.

M.N. 3094. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:55·7

The specimen is an appendix removed by operation. The appendix is bent on itself. Its outer surface, to within a short distance from the tip, is markedly roughened from inflammatory adhesions and a mass of adherent omentum can be seen attached to the appendix. A glass-rod has been inserted into the lumen at the base of the appendix.

M.N. 3102. Mr. Southam.

APPENDICITIS WITH STENOSIS AND DILATATION. 35·3:55·5 35·3:27

The appendix is enormously distended, measuring $5\frac{1}{2}$ inches in length and $1\frac{1}{4}$ inches in diameter. The distension is uniform with the exception of two small bulgings, and the wall is smooth. The contents consist of thick, clear, mucoid fluid, like white of egg. At the base is seen an area 1 inch in diameter, covered with mucous membrane of the cæcum. In the centre of this is a dimple, which indicates the position of the completely obliterated orifice of the appendix. There is no sign of peritonitis on the serous surface.

The patient was a man aged 40 years, who gave a history of 18 months' constipation, alternating with diarrhœa. There was no loss of flesh. The abdomen was found to be distended, and an elongated, very mobile tumour could be felt in the region of the cæcum. The appendix was removed and the opening in the cæcum closed by suturing, April 30, 1904. Peritonitis followed and death occurred.

M.N. 3113. Mr. Wright.

APPENDICITIS. 35·3:52·1

The specimen is thickened and its serous coat is somewhat rough from inflammatory exudation. There is an unusual amount of fat in the mesoappendix. A thin strand of adhesion passed from the tip to the surrounding structures.

The patient was a woman aged 42 years, who had had attacks of appendicitis 2 years, 1 year, and 2 months before operation.

M.N. 3114. Dec. 9, 1898. Mr. Wright.

APPENDICITIS WITH PERFORATION. 35·3:55·4 35:3:22

The specimen shows the appendix buried in a dense mass of inflammatory adhesions. In removing it the tip was left adherent to the cæcum. It was found that the lumen of the appendix communicated with the lumen of the cæcum.

The patient was a man, aged 44 years, who had had four attacks of appendicitis during the previous 4 years. The last attack had been 8 weeks before operation. The appendix was removed Dec. 9, 1898.

M.N. 3115.

APPENDICITIS. 35·3:52

The specimen shows the appendix thickened to a slight extent, especially towards the free end. An incision has been made in the convex surface, and shows the mucous membrane thickened.

The patient was a man, aged 32 years. There was a history of 10 months' duration. The attacks of abdominal pain were accompanied with vomiting and diarrhœa.

M.N. 3116. Feb. 27, 1902. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:55·7

The specimen shows the appendix freed from its mesenteric attachment. The free end is slightly swollen, and is prolonged into a band of adhesion which has been cut after ligature.

The patient was a male, aged 46 years. There had been seven attacks of appendicitis during the 2 years previous to the operation. The last attack, which occurred a month before, was most severe of them all. The appendix was removed Feb. 27, 1902. Numerous omental adhesions were found.

M.N. 3117. July 19, 1895. Mr. Wright.

APPENDICITIS WITH CONCRETION. 35·3:52 35·3:43

The specimen shows the appendix laid open. The mucous membrane in the distal portion is enormously thickened, and shows a convoluted surface resembling that of a swollen Peyer's patch. The peritoneal coat is thickened and discoloured from inflammation. There is a large amount of fat in the meso-appendix. The concretion which was enclosed in the appendix is seen in the bottom of the glass jar.

The patient was a man, aged 29 years, who had five or six attacks of appendicitis between August, 1894, and June, 1895. The appendix was removed July 19, 1895. The patient did well until the seventh day, when he complained of flatulence, and collapsed.

M.N. 3118. May 31, 1900. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:55·7

The appendix is elongated and bulbous at its extremity. The serous surfaee is mueh roughened from inflammatory adhesions. The lumen has been laid open for a eonsiderable part of its length, and shows a thiekened mucous membrane.

The patient was a man, aged 25 years, who had three attaeks of appendieitis —in Oetober, 1898, June, 1899, and Mareh, 1900. The appendix was removed May 31, 1900.

M.N. 3119. Feb. 1, 1901. Mr. Wright.

APPENDICITIS. 35·2:52

The speeimen is an appendix bent upon itself so that it forms an almost eomplete S. At the upper angle an ineision has been made at the convex surfaee, and exposes the mucous membrane. The extreme end is oecupied by a small nodule of fat. The serous coat is slightly roughened.

The patient was a girl, aged 21 years, who had 30 or 40 slight attacks of appendieitis, dating from childhood. The appendix was removed Feb. 1, 1901.

M.N. 3120. Nov. 29, 1896. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:52 35·3:55·7

The specimen is an appendix removed by operation. The peritoneal surfaee is roughened from adhesions and from swollen lymphaties. The free end of the appendix is eonsiderably thickened.

The patient was a female aged 25 years.

M.N. 3121. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:55·7

At the lower end of the specimen is seen the proximal end of the appendix, but the greater part of the organ is buried in a mass of fibrous adhesions. The strueture has been divided into two parts.

M.N. 3122. Jan. 18, 1901. Mr. Wright.

APPENDICITIS. 35·3:52

The specimen shows the appendix slightly enlarged. The peritoneal coat is roughened by fibrous adhesions. The lumen has been opened along its convex surface and shows the thickened mucous membrane.

The patient was a man aged 25 years, who had had five attacks of appendicitis during the year preceding the operation, which was performed Jan. 18, 1901. Recent adhesions were present and the appendix contained a little pus. Recovery was uneventful.

M.N. 3123. Feb. 3, 1897. Mr. Wright.

APPENDICITIS WITH ADHESIONS. 35·3:55·7

The appendix is bent on itself and is enclosed in a mass of inflammatory tissue. A glass needle is inserted in the lumen. Above this is an inflamed lymph gland which has been sectioned. Still higher is the free end of the appendix, showing a small perforation.

The patient was a female aged 40 years. There had been three severe attacks of appendicitis during the two years preceding the operation, and also slight attacks between these. Operation was performed on Feb. 3, 1897, and the appendix was removed. Dense adhesions were separated and perforation occurred, a little mucus escaping from the lumen. Recovery was uneventful.

M.N. 3124. Mr. Wright.

APPENDICITIS WITH STENOSIS. 35·3:55·5 35·3:52·2

The appendix is thickened and bent on itself. At the angle there is an appearance of stricture, and beyond this point the lumen is relatively dilated. The peritoneal surface is slightly roughened with fibrous tissue. A small window has been cut along the convexity, and shows the mucous membrane thickened by chronic inflammation.

The patient was a man aged 22 years, who had had frequent attacks of appendicitis during the 2 years preceding the operation. Only slight adhesions were present,

M.N. 3125. Mar. 7, 1900. Mr. Wright.

APPENDICITIS. 35·3:52

The appendix was removed by operation. It has been opened along half its length. The mucous membrane is much thickened and slightly pitted on the surface. The peritoneal surface, especially at the free end, is roughened by inflammatory exudation. The appendix is coiled on itself.

The patient was a boy aged 12 years. Operation, March 7, 1900.

M.N. 3126. Mr. Wright.

APPENDICITIS. 35·3:52·1

With the appendix are a few lobules of fat which were found adherent to it at the operation. In this case an abscess had formed and was drained by an opening in the iliac fossa where it was pointing. The discharge of pus continued for over 2 months. The area was opened up by an incision, and the appendix was found adherent to the cæcum so completely that it was eviscerated. The muscular and mucous coats were removed, but the serous coat was left *in situ*. The appendix contained pus.

The patient was a female, aged 14. She had suffered also from bronchiectasis. Recovery was satisfactory.

M.N. 3127. Nov. 1, 1901. Mr. Wright.

APPENDICITIS WITH CONCRETION. 35·3:52·2 35·3:43

The appendix shows throughout roughening of the serous coat from inflammation. On the convex surface, about the middle, an incision has been made and a concretion removed from the lumen.

The patient was a girl, aged 16 years, who had a first attack of appendicitis 4 years previously. Since that time she had had three or four attacks every year. The appendix was removed Nov. 1, 1901.

M.N. 3128. March 4, 1902. Mr. Wright.

APPENDICITIS WITH ADHESIONS.

35·3:55·7

The specimen shows the appendix, which has been removed by operation. A glass rod has been placed in the proximal end of the lumen. The mucosa is exposed at this point for about a third of an inch, where a sero-muscular flap was turned back to cover the stump of the appendix. The appendix is swollen. Near its apex an inflammatory adhesion has been separated in removing it. A fragment of adherent omentum hangs from the side of the specimen.

The patient was a male. The appendix was removed March 4, 1902.

M.N. 3129. Oct. 1, 1898. Mr. Wright.

APPENDICITIS WITH PERFORATION.

35·3:55·4
35·2:22

The appendix is a good deal thickened, and the serous surface is discoloured and roughened by the deposit of inflammatory lymph. A glass rod indicates double perforation. Near the tip the surface has a worm-eaten appearance from inflammatory necrosis.

The patient was a male. The appendix was removed by operation, Oct. 1, 1898.

M.N. 3189. Jan. 4, 1905. Mr. Collier.

APPENDICITIS WITH ADHESIONS.

35·3:52·2
35·3:55·7

This specimen shows the appendix, closely bound down to a portion of the omentum by inflammatory adhesions. The terminal part of the appendix is thickened and bent at a right angle.

The patient was a man, aged 29 years, who had had a first attack of appendicitis in October, 1904. The third and last attack was on Dec. 22, 1904. The appendix was removed Jan. 4, 1905, when the attack had quite passed off. Firm adhesions with the omentum were removed with the appendix, which measured $3\frac{1}{2}$ inches long. Recovery was uneventful.

M.N. 3333. D.B. 3571. P.M.M. 1896, No. 153. June 28, 1897. Dr. Leech.

COLON: Ulcerative Colitis. 35·4:55·3

This specimen is a portion of the large intestine, and on the mucous surface the characteristic structural changes of chronic ulcerative catarrh are seen. The mucous membrane is in a large measure destroyed, and the parts remaining are tags and nodules swollen so as to form polypoid projections. The floor of the ulcer was of a greyish colour formed of the submucosa and muscular layer, but in some of the ulcers this also has been much disintegrated. The mucous membrane of the small intestine was congested, but not otherwise abnormal. The liver was fatty.

The patient, a woman, of 25, gave 5 weeks' history of purulent diarrhœa. Temperature about 101°; pulse, 120—150. She suddenly became much worse, and died after 12 hours.

M.N. 3334. D.B. 2820. P.M.M. 1894, No. 111. Nov. 8, 1894. Dr. Leech.

COLON: Ulcerative Colitis. 35·4:55·3

Starting at the cæcal region and extending through the colon is an extensive tract of ulceration. In the cæcal region the ulcers vary in size from a large pin's head to 2 inches in diameter. They are chiefly transverse in direction; the borders are soft, smooth and slightly rounded; the base in some cases is formed by soft, sloughing submucous tissue, but in other cases the ulcer has extended to the serous coat. Superficial ulcerations are also found on the mucosa of the vermiform appendix. In the ascending and transverse colon the ulceration is much more extensive. The mucosa is in great part lost; in some places it remains as soft, pale, irregular patches, and in others the submucous and muscular coats are exposed. Also in places the ulcer has extended as far as the serous coat, and this is very soft, thin and friable. Towards the lower end of the descending colon, and in the sigmoid flexure the ulceration is still more extreme, and here the only areas of the mucosa left are small, irregular, soft, swollen, pigmented tags.

The patient was a male, aged 32. At the autopsy abscesses were found in both axillæ.

M.N. 3353. D.B. 4372. P.M.S. 440. Apr. 25, 1905. Mr. Thorburn.

TRANSVERSE COLON: Ulcerative Colitis. 35·4:55·3
35·4:22

Near the upper part of the specimen is a large, irregular ulcer, with slightly undermined edges. It had penetrated deeply, and at one point has perforated. The edges were slightly swollen and red, and the base was sloughing. Adjacent to the ulcer were a few similar but much smaller ulcers. Otherwise the mucous membrane was free from ulceration.

Microscopic examination shows that the mucous membrane has been very extensively destroyed, only a few cells are left close to the muscularis mucosa. There is no trace of gland structure beyond this, and the surface is covered with a layer of granulation tissue in a state of partial necrosis.

The patient was a male aged 59, who died from peritonitis.

M.N. 3356. D.B. 4443. P.M.S. 447. May 16, 1905. Mr. Smith.

DUODENUM: Phlegmonous Duodenitis. 35·1:54·4
STOMACH: Follicular Gastritis. 34(42):55·1

Four inches from the pylorus, the duodenal wall is much thickened and feels firm. The valvulæ are also much more prominent than normal. At this part the mucosa was bright red from intense injection, but there were no hæmorrhages visible. Section of the wall shows the thickening to be chiefly in the submucosa; but no excess of fluid or pus could be expressed from the cut surface. This affection of the duodenum involves the entire circumference, and extends for a length of 4 inches. Both upper and lower limits are ill defined. There was no sign of ulceration. The mucous membrane in the pyloric region of the stomach has a finely granular surface due to inflammatory enlargement of the lymph follicles situated in the mucous membrane.

The microscopic examination shows that all the coats, and especially the submucosa, are infiltrated with an enormous number of polymorphonuclear leucocytes. Among these there is a fine network of fibrin filaments. By Gram's stain the tissue is seen to be swarming with diplococci.

The patient was a female aged 33 years. She was admitted to the M.R.I. with acute peritonitis, and died within 14 hours. (See kidney, M.N. 3376—51:42·1.)

M.N. 3364. D.B. 4332. P.M.S. 422. Feb. 23, 1905. Mr. Collier.

LARGE INTESTINE: Descending Colon; Ulcerative Colitis. 35·4:55·3 35·4:22

The entire mucous membrane is of a very dark colour, ranging from green to reddish-brown and black, thus giving the whole a peculiar mottled appearance. The mucosa is the seat of innumerable ulcers varying greatly in size, up to that of a florin, and in shape (though most are oval or circular), and in depth. In this part of the bowel no healthy mucous membrane remained. The strands of mucous membrane between the ulcers projected as grey, firm, fibrous-looking, thin ridges. The condition of ulceration ended abruptly as a horizontal ring at the commencement of the rectum. The upper boundary of the ulcerated area was less well-defined and encroached to a slight extent on the transverse colon. The walls of the affected bowel felt firm, and were markedly thickened as a whole, the cut section showing throughout an appearance like that of grey fibrous tissue. It was dotted with a large number of minute bleeding points. In places, notably in the sigmoid flexure, the ulcers have extended to such a depth that only a mere film of serous membrane (not thickened) is left, and this in several sites had given way, leading to perforation with escape of the bowel contents into the cavity of the peritoneum. Throughout the affected area the bowel was dilated, and the contents were of soft, though solid consistence, and were of very foul odour. In the cæcum, ascending colon, and transverse colon, the wall of the bowel is of normal thickness, and the mucous membrane is for the most part smooth and velvety, but here and there are minute hæmorrhages. In the transverse colon there are a few small, irregular-shaped ulcers, extending into the submucous tissue—the smaller ones having white, opaque, unthickened edges. The largest one is of the size of a threepenny piece, with distinctly undermined edges.

Microscopic examination shows marked inflammatory infiltration of mucous and submucous coats, with atrophy and disappearance of the epithelial tubules.

The patient was a female, aged 50. She was admitted to the Infirmary with signs of perforative peritonitis, and died within 24 hours.

M.N. 3377. D.B. 4636. P.M.M. 727. July 3, 1905. Dr. Dreschfeld.

LARGE INTESTINE: Ulcerative Colitis. 35·4:55·3

The bowel was collapsed, and its walls felt firmer than normal. On section they were found to be the seat of a diffuse overgrowth of fibrous tissue, having a very regular distribution through the submucous coat. The mucous membrane is irregular from the presence of innumerable flat plateaux of pale drab colour, separated by depressions extending to the submucous coat, and of a brownish-red colour. The size and shape of the raised portions vary greatly. Some are round and oval, others are strips several inches in length. The changes were evenly distributed throughout the bowel.

The patient was a female, aged 21, who died suddenly. Hæmorrhage into both adrenal glands was found. (See heart M.N. 3493—12:41, and spleen M.N. 3494—45:36·1, and adrenal M.N. 3378—47:33.)

M.N. 3397. D.B. 2103. June, 1897. Dr. Dreschfeld.

LARGE INTESTINE: Fibrinous Colitis. 35·4:54·2

The mucous membrane is somewhat discoloured and shows enlarged solitary follicles, but there is no general thickening. Over the surface are seen the remains of a fibrinous membrane irregularly distributed. (The tissue refuses to take the stain for microscopic examination.)

M.N. 3442. D.B. 3718. P.M.S. 1899, p. 52. Oct. 4, 1899. Mr. Jones.

JEJUNUM: Fibrinous Inflammation. 35·2:54·2
35·2:55·3

The mucosa is very much swollen and congested, and opposite the mesenteric attachment ulceration has commenced. In one or two places it had perforated, and had led to purulent peritonitis. The mucosa of the jejunum and ileum was the seat of numerous irregular areas of necrosis, and these were surrounded by zones of purulent infiltration.

M.N. 3526. D.B. 4681. P.M.M. 746. Aug. 28, 1905. Dr. Judson Bury.

LARGE INTESTINE: Diphtheritic Enteritis. 34·4 : 54·3

The mucous membrane is of a slaty-grey colour, and shows areas of partial necrosis on which a membrane has become deposited. At some points there are numerous shallow ulcers. These changes are not continuous, and are most marked in the cæcum and rectum. The descending colon and sigmoid flexure are comparatively normal. The appendix also was normal. The small intestine showed similar changes in the lower two-thirds of the ileum.

The patient was a female, aged 27. At the autopsy were found small white kidneys. Heart slightly hypertrophied, and sero-purulent peritonitis with thickening of the mesentery, but without thrombosis or embolism of the large blood-vessels. (See stomach M.N. 3592—34 : 55·4, liver M.N. 3591—36·2 : 67·1, and kidney M.N. 3510—51 : 52·2.)

M.N. 3578. D.B. 4693. Nov. 24, 1905. Mr. Stanmore Bishop.

APPENDICITIS WITH PERFORATION. 35·3 : 52
35·3 : 22

The appendix shows a very irregular roughened outer surface with a large number of inflammatory adhesions; about a third of an inch from the distal extremity a rupture of the wall has occurred.

M.N. 3616. D.B. 4738. Nov. 7, 1905. Mr. Thorburn.

APPENDICITIS WITH CONCRETION. 35·3 : 52
35·3 : 43

The specimen consists of a section taken through the appendix and the overlying portion of the abdominal wall to which it is adherent. The skin is deeply puckered, and a band of dense fibrous tissue is seen passing through the muscle beneath, down to the tip of the appendix. The appendix itself is curved, forming almost a complete circle; its apex is thickened from the formation of fibrous tissue, the result of inflammation; near the tip the lumen is distended, and contains a fæcal concretion, about the size of a cherry-stone.

The patient was a boy, aged 14 years. He had had an attack of appendicitis in April, 1904, and an abscess formed and was drained, subsequently healing slowly. In March, 1905, there was a second attack, and again an abscess formed. A third similar attack occurred in Aug., 1905. On Nov. 7, 1905, the appendix with the adherent scar was removed. Recovery was uneventful.

INTESTINE: SPECIFIC INFLAMMATIONS.

M.N. 1846. D.B. 2864.

LARGE INTESTINE: Old Standing Tuberculous Ulceration. 35·4:56·1
35·4:55·5
35·4:52·2
43·5:55·4

The mucous surface of the large intestine is very much discoloured and ulcerated. In the upper half of the specimen there is a dense mass of cicatricial tissue, causing marked thickening of the wall, and forming an irregular series of bridges across the lumen; the formation of these has caused almost complete obstruction. On the peritoneal surface there are one or two caseous glands in relation to the old cicatrix.

Microscopic examination shows that the mucous membrane has characteristic deposits of tuberculous tissue with caseous centre, and giant-cell formation. The peritoneal layer is very much thickened.

M.N. 1894. Dr. Ransome.

SMALL INTESTINE: Tuberculosis, Old Standing. 35·2:56·1
35·2:55·5

The specimen shows a portion of the small intestine, the upper part of which has been dilated. About the middle of the specimen there is situated an irregular mass of tissue, causing stenosis of the lumen. This is due to old-standing tuberculous ulceration.

M.N. 1950. D.B. 2747.

LARGE INTESTINE: Dysentery. 35·4:56·7
35·4:55·3

The wall of the intestine is thickened, and the mucous membrane presents an uneven surface owing to the irregular nodulated condition of the mucosa, which has been extensively ulcerated. Over the lumen small, rounded portions of the mucosa, which have escaped the ulcerative process, stand out somewhat prominently from the rest of the wall.

M.N. 1951.

LARGE INTESTINE: Dysentery. 35·4:56·7
35·4:55·3

The wall of the intestine shows marked thickening, which has affected chiefly the mucosa. Ulcers with smooth bases are observed in large number, and the mucous membrane surrounding the ulcers has the form of ridges, which give a broken-up appearance to the surface. The ulcers can be seen very well by transmitted light.

The patient gave a history of dysentery in India 10 years ago.

M.N. 1953A. D.B. 384. P.M.M. 1884, p. 656. Oct., 1886. Dr. Ross.

LARGE INTESTINE: Dysentery (Tropical) 35·4:56·7
35·4:55·3

The specimen shows a portion of the large intestine at its commencement; the wall is very much thickened, and the mucous membrane is thrown into large, prominent, irregular folds. The mucosa covering these folds is the seat of an enormous number of ulcers, some of which are "punched-out." In other instances small processes of mucous membrane, isolated from each other, survive in a partially necrosed condition on the bases of the ulcers, and give an aspect of granularity. In the cæcal pouch, portions of the mucous membrane are seen partly detached, and a few shreds of fibrin adhere to the surface.

The patient had in the right lobe of the liver an abscess, the cavity of which contained several pints of thick, blood-stained pus, and there were also several smaller abscesses near the large one.

M.N. 1953B. D.B. 384. P.M.M. 1884, p. 656. Oct., 1886. Dr. Ross.

LARGE INTESTINE; Dysentery (Tropical) 35·4:56·7
35·4:55·3

See description of 1953A (above).

M.N. 1954. D.B. 2927.

LARGE INTESTINE: Dysentery. 35·4:56·7
35·4:55·3
35·4:54·3

The wall of the intestine is enormously thickened and presents a surface, very uneven from the presence of irregular nodular masses, which project into the lumen of the gut. Between these masses there are deep, excavated ulcers, and over the whole surface there has been a deposit of fibrinous membrane and irregular shreddy masses of this are hanging free.

M.N. 1956. D.B. 1096. June 5, 1890. Dr. Reynolds.

SMALL INTESTINE: Typhoid Fever. 35·2:56·6

The specimen shows two short portions of the small intestine. In each there is present in the mucous membrane a Peyer's patch, showing considerable thickening and a convoluted surface. The intestinal wall is not thickened, and the solitary follicles are not enlarged. The peritoneal surface is not inflamed.

M.N. 1957. D.B. 1187.

SMALL INTESTINE: Typhoid Fever. 35·2:56·6

The specimen shows a portion of the small intestine about 7 inches in length. The wall is of about normal thickness. The Peyer's patches are swollen and convoluted on the surface but not ulcerated. The solitary follicles also stand out prominently on the surface of the mucous membrane. There is no inflammation on the peritoneal coat.

M.N. 1958. D.B. 2746.

SMALL INTESTINE: Typhoid Fever. 35·2:56·6
35·2:55·3

This specimen shows six short pieces of the wall of the small intestine, and on each of the pieces there is present a Peyer's patch, which shows the characteristic changes of typhoid fever. In the upper one to the right it may be observed that Peyer's patch has been somewhat irregularly invaded by the typhoid virus. The upper segment of the patch is markedly swollen

and on the centre of the swollen area a slough has formed that is not yet detached. Below this, for some distance, the patch is scarcely affected. At the lower extremity, however, it is again swollen; sloughing has just commenced. The other portions show Peyer's patches in various stages of sloughing and ulceration. There is no peritonitis on the serous coat of the intestine.

M.N. 1963.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
35·2:55·3
38:56·1

The mucous surface is the seat of three large and a number of small ulcers. The large ulcers have an exceedingly irregular base, the edges are moderately thickened, and, in parts, undermined. Their long axis is transverse to the longitudinal direction of the lumen. On the serous surface the peritoneal coat at the seat of ulceration is thickened and discoloured, and studded with miliary tubercles, and along the lymph channels passing from these areas are seen rows of miliary tubercles.

Microscopic examination of the tissue shows tuberculous nodules in the muscular and peritoneal coats.

M.N. 1964. Dr. Bardsley.

SMALL INTESTINE: Typhoid Ulceration. 35·2:56·6
35·2:55·3

The specimen shows the lower end of the ileum with the mucous surface exposed. Along the mucous membrane there is a large number of ulcers irregularly rounded, sometimes partly stellate in form, surrounded in many cases by an edge of swollen tissue, apparently the remains of a patch of lymphoid tissue in the wall. The ulcers are very closely clustered together over a somewhat triangular area at the lower end of the specimen, which appears to correspond with the area of lymphoid tissue situated immediately above the ileo-cæcal valve. The peritoneal aspect of the intestine is not exposed to view.

M.N. 1967. Dr. Dreschfeld.

SMALL INTESTINE: Tuberculosis. 35·2:56·1
35·2:55·3

In the centre of the specimen is situated an oval ulcer about $\frac{3}{4}$ in. long and $\frac{1}{2}$ in. broad. The edges are rounded and swollen. The base consists of broken up shaggy tissue which sends projections into the floor of the ulcer. There is evidence of the presence of tuberculous inflammation of the lymphatic vessels lying in the peritoneum over the ulcer.

M.N. 1969. D.B. 1196. Feb. 11, 1891. Dr. Harris.

SMALL INTESTINE: Tuberculous Ulcer. 35·2:56·1
35·2:55·3

The specimen shows five portions of the small intestine in the centre of each of which is a well-marked tuberculous ulcer. The ulcers present the following characters:—oblong, rounded in form, the longest diameter across the lumen of the intestine, the mucous membrane forming the edge of the ulcer thickened, slightly overhanging at one or two points, the base of the ulcers granular, but fairly regular. In the centre of the uppermost one of the series there is, in the base, an area of deeper excavation. The intestinal wall round the ulcer is not swollen. Three of the portions show valvulæ conniventes, while the remaining two are free from them. The peritoneal surface is smooth, and there is no naked-eye evidence of tuberculous infiltration. (See larynx M.N. 1109—22:56·1.)

M.N. 1971. D.B. 2898.

SMALL INTESTINE: Old Standing Tuberculous Ulcers. 35·2:56·1
35·2:55·8

This specimen shows a few inches of the intestine, in the midst of which, running transversely across the whole width, there is an area of old-standing tuberculous infiltration. The edge of the ulcer is considerably thickened, and the base is composed of irregularly thickened tissue, which presents a characteristic worm-eaten appearance. This thickening is due to the presence of fibrous tissue formed during the process of healing. The peritoneal surface is much roughened from adhesions, but there is no evidence of tuberculous inflammation of the lymphatics at this point.

M.N. 1972.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
35·2:22

The specimen shows a short portion of the small intestine from the lower end of the ileum. In the mucous coat there is a large ulcer with sharply-defined edges, irregular in form, but somewhat thickened, and here and there undermined. The ulcer has an irregular shape. The base is very smooth, apparently consisting of the muscular coat, which is unchanged except for the presence of one or two small miliary nodules. In the midst of the floor there is a small perforation, and on the peritoneal aspect of the intestinal wall, there is a copious deposit of plastic lymph, indicating recent peritonitis.

M.N. 1973. D.B. 2888.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
35·2:55·3

The specimen has been injected. On the mucous surface there is a series of ulcers, small in size, and surrounded by a considerably thickened mucous membrane. The injection shows clearly the marked vascularity of the injected areas, as compared with the rest of the intestinal wall. There is some slight evidence of tuberculous inflammation of the lymphatic vessels in the peritoneal coat, but this is very imperfectly defined.

M.N. 1974. D.B. 2748.

TUBERCULOUS ULCER: Small Intestine. 35·2:56·1
35·1:22

In the centre of the wall there is a fusiform ulcer, the longest diameter being about ½ inch. In the formation of the floor, the muscular coat extends inwards beyond the ulcerated edge of the mucosa, and in the centre of the ulcer the floor is formed by the peritoneal coat. At one side of this formation a lenticular perforation has occurred. On the peritoneal aspect of the intestine there are signs of the presence of a considerable degree of tuberculous inflammation of the lymphatics. The specimen is from the duodenum or upper part of the ileum.

M.N. 1977. Dr. Roberts.

RECTUM: Stricture. 35·5:56·3
35·5:55·5
35·5:62·1

The specimen shows the rectal wall enormously thickened. The muscle is greatly hypertrophied, and the mucous membrane is thrown into folds which are so large that the spaces between them appear as considerable recesses. The stricture has reduced the lumen of the intestine to the dimensions of the diameter of a lead pencil. There is no sign of new growth, and the stricture was probably due to contraction following syphilitic inflammation.

M.N. 2249. D.B. 4612. Mr. Stanmore Bishop.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
35·2:55·3

The specimen shows a short segment of the ileum, the seat of tuberculous ulceration. The ulcers are oblong, with the longer axis in the transverse diameter of the lumen. The floor of the ulcer is irregular and the edges are thickened.

M.N. 2265. Mr. Stanmore Bishop.

SMALL INTESTINE: Typhoid Ulceration. 35·2:56·6

The lowest ulcer has perforated, and in another the peritoneal coat forms the floor.

M.N. 2780. D.B. 4050. Mar. 8, 1903. Dr. Harper.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
MESENTERIC GLANDS: Tuberculosis. 35·2:55·3
43·5:56·1
43·5:44·2

On the mucous surface of the small intestine there are a number of ulcers varying in size, elliptical and quadrangular in shape, the long axis transverse to the line of the lumen, the edges slightly thickened, the base fairly smooth, but somewhat granular and tuberculated. The peritoneal aspect shows clearly the presence of tuberculous inflammation of the lymphatics leading from the largest of the ulcers. The glands in the mesentery are very much enlarged, and on section show areas of caseation. (See lung M.N. 2916—25:56·2.)

M.N. 2889. D.B. 4218. P.M.M. 584. May 28, 1904. Dr. Wilkinson.

CÆCUM AND APPENDIX: Tuberculosis. 35·3:56·1
35·3:55·3

A ring of ulceration is found just above the ileo-cæcal valve. The surface has a roughly honeycombed appearance. The margin of the ulcerated area is firm, nodular, and slightly raised. The base is firm, and does not show definite tubercles. There were no tubercles on the peritoneal aspect. The distal half of the appendix is swollen and club-shaped. The outer surface is smooth and free from inflammatory exudation. A few small yellow areas were seen in the peritoneal coat (these have been cut away); they contained caseous matter. The wall is thickened, firm, and injected. The proximal half is practically normal. The lumen contained thin mucus, stained by fæcal matter. There were numerous small circular ulcers, chronic in character, in the lower three-fifths of the ileum. There were on the peritoneal aspect, in a few cases, a number of small grey tubercles. There were no ulcers in the large intestine. Fibro-caseous and pneumonic patches were found in both lungs in the upper lobe. In the left lung a few cavities were present. There was a solitary tubercle in the liver. Liver, spleen and kidney were waxy.

The patient was a male, aged 32.

M.N. 2896. D.B. 3505. P.M.M. 1896, No. 72. Jan. 9, 1897.
Dr. Graham Steell.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
35·2:55·3
38:56·1

The loop of small intestine has been laid open, and left in attachment to the mesentery. The intestinal mucosa is the seat of a number of ulcers situated in the wall away from the mesenteric attachment. The edges of the ulcers are undermined, and somewhat thickened, and the floor is irregular. Tuberculous inflammation of the lymphatics is seen in the peritoneal coat, and miliary tubercles occur over the surface of the mesentery. A few enlarged lymphatic glands are also to be seen in the mesentery.

Clinical notes:—Patient, a boy aged 15. History of 12 months' illness, weakness and diarrhœa. Tubercles found in both lungs and in retina. Bile in the urine before death, but no jaundice.

M.N. 2947. D.B. 4331. P.M.M. 696. Feb. 21, 1905. Dr. Graham Steell.

SMALL INTESTINE AND CÆCUM: Tuberculous Ulceration. 35·3:56·1
35·3:55·3

The mucosa of the small intestine showed extensive ulceration, the highest point affected being about 2 ft. below the commencement of the jejunum. The ulcers are small and sparsely scattered in the upper part of the ileum, but they are larger and more numerous in the lower part. They are oval or circular in shape, but none are annular. Their edges are raised, though not injected, and their bases are shreddy, while on the serous coat are seen numerous minute grey tubercles embedded in thick, grey, roughened, peritoneal tissue. No adhesions were found. In the large intestine were about a dozen similar ulcers. They are irregularly scattered throughout the colon, but there were none in the rectum.

Microscopically, the section of the wall shows nodules of tuberculosis in the sub-mucous, muscular, and sub-serous coats.

The patient was a male, aged 62. At the autopsy were found advanced pulmonary tuberculosis and an ischiorectal abscess. (See small intestine M.N. 3316—35·2:56·1, and lung M.N. 2946—25:56·1.)

M.N. 2972. D.B. 4133. P.M.M. 458. Sept. 1, 1903. Dr. Graham Steell.

SMALL INTESTINE AND MESENTERIC GLANDS: Tuberculosis. 35·2:56·1
43·5:56·1

The mesentery shows a large number of pale yellowish-white enlarged glands of firm consistence, separate from each other as a rule. Attached to the mesentery is a portion of the small intestine displaying well-marked typical tuberculous ulcers. These were abundant in the ileum, and though large, none were annular. There was no invasion of the peritoneal coat.

M.N. 3231. D.B. 4406.

SMALL INTESTINE: Typhoid Ulcer. 35·2:56·6
35·2:55·3
35·2:22

The specimen consists of a portion of the small intestine, the site of typhoid ulceration. The mucous membrane generally is deeply congested and shows well-marked valvulæ conniventes. In the midst of the segment an ulcer has

formed, somewhat spindle-shaped in outline. The floor of the ulcer is very thin throughout, and in the centre of it a rounded perforation has occurred. This has led to extensive peritonitis, and there is a marked deposition of fibrinous exudate on the peritoneal surface. Near the site of the ulcer there is an area of swelling of the lymphoid tissue, but ulceration has not taken place at this point.

Microscopically, in the lymphoid tissue there is a great proliferation of endothelial cells with necrosis in the centre of the area.

M.N. 3290. D.B. 4053. P.M.M. 385. Mar. 25, 1903. Dr. Graham Steell.

CÆCUM AND ASCENDING COLON: Tuberculous Ulceration. 35·4:56·1 35·4:55·3

The specimen shows very extensive, irregularly nodular, annular areas of chronic tuberculous ulceration. The ulcerated area is roughly marked out into three broad zones, two of them being in the colon. The floor of the ulcers is irregular and honey-combed in appearance. The edges are slightly raised, thickened, and firm. There are no signs of tubercles on the serous coat at these points. The small intestine showed extensive ulceration with perforation.

The patient was a male aged 51. Both lungs were phthisical.

M.N. 3316. D.B. 4331. P.M.M. 696. Feb. 21, 1905. Dr. Graham Steell.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1 35·2:55·3

There was general ulceration of the mucosa of the intestines in this case. The specimen shows two of the smaller ulcers from the jejunum. (See cæcum M.N. 2947—35·3:56·1, and lung M.N. 2946—25:56·1.)

M.N. 3335. D.B. 3491. Dr. Goodfellow.

CÆCUM AND SMALL INTESTINE: Typhoid Fever. 35·2:56·6
35·3:56·6

The specimen shows the lower end of the small intestine, the cæcum, and the vermiform appendix, from a child aged 10, who died in the 5th week of typhoid fever. The mucous surface of the small intestine is covered with swollen lymphoid areas, Peyer's patches, and solitary follicles. In a considerable number of these areas the central part has begun to undergo necrosis and a slough has commenced to form. The cæcum shows a greatly swollen and rugose mucous membrane, and on the ridges a few small ulcers can be seen. The mesenteric glands attached to the cæcum show characteristic swelling.

M.N. 3336. D.B. 3459. P.M.M. 1896. No. 6. Sept. 2, 1896. Dr. Leech.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1
35·2:55·3

The portions of small intestine are seen to be the seat of very extensive tuberculous ulceration. The areas of ulceration have an annular form. The ulcers are very irregular, and have a well-marked worm-eaten appearance and the mucous membrane in the patches affected by ulceration is slightly swollen, and markedly undermined.

The patient was a female, aged 24, and at the autopsy there were evidences of tuberculosis in both lungs, right kidney, and large intestine.

M.N. 3465. D.B. 4371. April 26, 1905. Dr. Hutton.

SMALL INTESTINE: Tuberculous Ulceration. 35·2:56·1

The broad piece of intestine contains a Peyer's patch, which is slightly swollen in one or two areas. Above this are two solitary follicles presenting definite ulcers which extend transversely. The edges of the ulcer are thick, and the floor is covered by necrotic tissue. The narrow piece of intestine shows two Peyer's patches. The upper one contains several small, swollen areas, and in the lower one is a well-marked ulcer, which occupies about two-thirds of the lymphoid tissue. The edges are thick and nodular. The specimen was taken from a male child, aged 9 months. It was bottle-fed and had wasted for some

time. The tonsils and cervical glands were enlarged and caseous in patches; the intestines contained numerous tuberculous ulcers, and the mesenteric glands and glands around the hilum of the spleen and the liver were enlarged, soft, and in some instances they showed caseous patches. General tuberculosis was set up, and at the autopsy tubercles were found in the spleen, kidneys, lungs and liver. Death occurred from meningitis. (See liver M.N. 3489—36 : 56·2.)

M.N. 3496. D.B. 4714. Oct. 25, 1905. Dr. Heywood.

SMALL INTESTINE: Tuberculous Ulceration. 35·2 : 56·1
35·2 : 55·3
43·5 : 56·1

The specimen shows numerous tuberculous ulcers in various stages. The transverse mode of extension, the nodular edges and floors, are all well marked. On the peritoneal surface, subserous tubercles are visible, and, in several instances, the course of the lymphatics is mapped out by the presence of minute tubercles. The mesenteric glands are much enlarged, and some of them show caseous areas. The bronchial glands were enlarged and caseous. Miliary tubercles were present in the liver, spleen, lungs, kidneys and meninges.

The patient was a child, aged 5 years.

M.N. 3573. D.B. 4676. July 31, 1905. Mr. Stanmore Bishop.

SIGMOID FLEXURE: Gumma. 35·4 : 56·3
35·4 : 55·3

The mucous membrane, which is generally swollen and congested, shows a large mass with a central deeply excavating ulceration. The edges of the ulcer are composed of soft bulbous vascular processes, which are somewhat paler than the surrounding mucous membrane. On the surface of section it is seen that the ulcer penetrates beyond the muscular coat, this layer in the neighbourhood being much paler than normal and much swollen. The peritoneal coat opposite the ulceration is greatly thickened.

Microscopic examination shows that the tissue of the edge of the ulcer has the form of typical granulation tissue. Large numbers of capillaries made up of somewhat prominent endothelial cells are seen lying in an extremely loose connective tissue whose meshes are crowded with polymorphonuclear leucocytes and lymphocytes. There is no definite caseation or giant-celled formation.

M.N. 3595. D.B. 4647. July 18, 1905. Dr. F. C. Moore.

INTESTINE: Primary Tuberculosis. 35·2:56·1
35·2:55·3

The specimen is a portion of the small intestine from a girl, aged 8 years. On the mucous surface, passing round the whole lumen, are numerous ulcers with a somewhat rough and injected base, and an irregular outline. On the peritoneal surface, corresponding to the site of the ulcers, the serous membrane is seen to be the seat of small, yellowish, tuberculous nodules. The piece of attached mesentery contains enlarged lymph glands, which on section show a somewhat pale, greyish colour, with pin-point nodules of yellow tubercles. The lungs were healthy, and there were no signs of tuberculosis in any of the other organs.

Microscopic examination of the bronchial glands showed absence of tuberculosis.

INTESTINE: BENIGN TUMOURS.

M.N. 1979. D.B. 198. Jan., 1886. Mr. Southam.

RECTUM: Polypus. 35·5:64·7

The polypus is the size of a cherry, rounded and smooth on the surface. It is mounted on a fairly thick stalk, which in the fresh condition measured $2\frac{1}{2}$ inches. It was attached to the posterior wall of the rectum.

Microscopic examination shows that the polypus has a very vascular cellular matrix, in which are a few strands of non-striped muscle fibres, and a large number of glandular alveoli lined by closely-packed, very tall columnar epithelium, the nuclei of the cells being situated close to the basement membrane.

The patient was a girl, aged 11.

M.N. 1980.

RECTUM: Papilloma. 35·5:64·6

The specimen is a warty-looking mass of very large size, consisting of a large number of papillary outgrowths covered by mucous membrane attached to a base in which there is no appreciable thickening from the new growth.

M.N. 2264. Mr. Stanmore Bishop.

SIGMOID FLEXURE: Fibro-lipomatosis. 38:63·2 (63·1)

This specimen consists in 6 inches of sigmoid flexure laid open by a longitŭdinal incision. The mucous membrane is normal in appearance; the muscular coat is slightly hypertrophied. The peritoneal coat is greatly thickened by an irregular polypoid layer of fibro-lipomatous tissue. Some of the processes constituting this layer are attached by very fine pedicles.

M.N. 3521. D.B. 4726. Nov. 8, 1905. Mr. J. W. Smith.

RECTUM and ANUS: Papilloma of the Mucous Membrane. 35·5:64·6

The specimen shows the line of attachment of the peritoneum, the insertion of the pubo-coccygeal fibres of the levator ani, and the obliquely directed fibres of the anal sphincter. The upper border of the growth is sharply demarcated from the adjacent rectal mucosa. The growth itself consists of ridges and depressions covered by papillary epithelial processes. Near the anal opening there is a large polypoid mass, somewhat darker in colour than the neighbouring tissue, with a broad base. This portion frequently prolapsed through the anus.

Microscopically, typical columnar-celled adenomatous tissue was present. The lymphoid tissue of the part was increased.

The patient was a female, aged 60 years, with a history of frequent rectal hæmorrhages.

M.N. 3653. D.B. 4599. June 20, 1905. Mr. Thorburn.

RECTUM: Multiple Papilloma. 35·5:64·6

This specimen consists in the lower part of the rectum everted. From the mucous surface are seen projecting large numbers of papillomata of various sizes. These are grouped together for the most part over a zone about 2 inches broad. Above this zone smaller scattered papillomata may be seen.

The microscopic examination shows the papillary processes covered with tall columnar epithelium, each process having a central stem of loose cellular fibrous tissue.

The specimen was removed by operation June 20, 1905.

M.N. 3772. D.B. 4853. Feb. 24, 1906. Mr. J. W. Smith.

RECTUM: Papilloma. 35·5:64·6

The specimen consists of a portion of the lower end of the rectum which has been laid open. The mucous membrane is slightly thickened and shows a rounded lobulated papilloma projecting from the surface.

Microscopically, the tumour tissue shows a covering of columnar epithelium.

The patient was a woman, aged 60 years. There had been a discharge of blood-stained mucus from the rectum for one year, and latterly constipation had been very troublesome. The portion of rectum was excised by the sacral route on Feb. 20, 1906.

INTESTINE: MALIGNANT TUMOURS.

LARGE INTESTINE: Carcinoma; Stenosis. 35·4:66·3
35·4:45·2
35·4:25·1

M.N. 1939. D.B. 183. Jan., 1886.

The specimen is a portion of the large intestine. About an inch from the lower end of the specimen there is a stricture, and on microscopic investigation this was found to be due to carcinoma. Above the stricture the wall of the intestine is greatly thickened from hypertrophy of the muscular coat, and also from thickening of the mucous membrane, which has been thrown into prominent ridges. In the lumen an ulcer has occurred, which has perforated the wall. It is of small size, and lies buried deeply in the thickened wall. A glass rod is *in situ*, passing through the opening due to the ulceration.

The microscopic examination shows, in the midst of the muscle, areas in which there are a few large epithelial cells lying amongst a number of lymphocytes. These cells have arisen from a carcinomatous infiltration of the intestinal wall, which had given rise to the stricture.

M.N. 1981. P.M.M. 1867, No. 550. Dr. Simpson.

SMALL INTESTINE: Round-Celled Sarcoma. 35·2:65·1

The specimen shows a loop of small intestine which passes in a circular manner round a mass of tumour to which it is attached. At one part the tumour has apparently broken down. An opening has been made in the wall of the intestine and leads into a cavity situated in the substance of the tumour. This is indicated by a glass rod.

Microscopic section shows that the tumour is composed of round cells, many of which are small, with large nuclei and little protoplasm; but here and there are large cells with an enormous single nucleus. The matrix is scanty and the blood-vessels are poorly developed.

Notes from the record of the post-mortem examination:—A tumour, about the size of a goose's egg, was found occupying the middle line, and hanging

loosely in the cavity of the pelvis. It was surrounded by a loop of small intestine immediately above the ileo-cæcal valve. The mesenteric glands were extensively invaded, and a large mass of tumour growth had formed immediately in front of the vertebræ. The liver was also invaded. The patient was a man, æt. 30, admitted Jan. 22, 1877, died Feb. 6, 1877. The right costal pleura showed a layer of secondary growth, and the cavity was filled with sero-sanguineous fluid. The right bronchial glands were invaded.

M.N. 1983. D.B. 980. Jan. 9, 1890. Dr. Frakes.

COLON; Colloid Carcinoma. 35·4 : 66·3 (42·7)

The specimen is a portion of the hepatic flexure, the wall of which shows a very irregular surface, due apparently to chronic inflammation. Running across the lumen, about the middle of the specimen, there is a broad band of new growth projecting into the cavity, and presenting a very irregular ulcerated surface. Complete stenosis resulted from this.

Microscopic section shows the tissue to be a columnar-celled carcinoma, with tall columnar cells situated on thin strands of fibrous tissue. The epithelial cells are undergoing colloid degeneration.

Clinical and Post-mortem Notes:—The patient was a male, aged 66. He had suffered from diarrhœa for 7 years, and for a week he had acute intestinal obstruction with much fæcal vomiting. The peritoneum, stomach, duodenum and upper jejunum were normal. The ileum was distended, and the cæcum and ascending colon were enormously distended by fluid fæcal contents. There were no secondary growths. (See large intestine M.N. 1955—35·4 : 55·3.)

M.N. 1984. D.B. 356. P.M.M. 1884, No. 201. July 24, 1886.
Dr. Lloyd Roberts.

ASCENDING COLON: Carcinoma. 35·4 : 66·3 (42·7)

The specimen shows the ileo-cæcal junction. At this point the wall of the bowel was very much thickened, and the mucous membrane over an area of $1\frac{1}{2}$–2 inches, and all round the bowel, was ulcerated. This part of the bowel was firmly adherent to the under surface of the liver, close to the gall-bladder. There was no marked stricture of the bowel at the site of new growth.

Elsewhere the large bowel was healthy. The rectum presented no abnormal appearances, except a few internal piles. There were a number of growths in the peritoneum, reddish-grey translucent in colour (colloid), about the size of peas, separate or in groups. The omentum was very much thickened, and covered nearly the whole of the intestine. The mesentery presented numerous secondary growths, and the retro-peritoneal glands were the size of walnuts and of a yellowish-white colour. There were no secondary growths in the liver. The spleen was surrounded by secondary growth, but showed none in its substance; there were two small infarcts present. There were no secondary growths in the thorax.

Microscopically, the cells show the typical structure of colloid degeneration.

M.N. 1986.

LARGE INTESTINE: Colloid Carcinoma. 35·4 : 66·3 (42·7)

The specimen shows a portion of the large intestine, in the middle of which a wedge-shaped mass of new growth is situated. It has a yellow translucent appearance, with a delicate white reticulum of connective-tissue. It has caused marked stenosis of the lumen; but the muscular wall of the intestine is not hypertrophied.

Microscopic section shows that the tumour is a carcinoma in a condition of advanced colloid degeneration.

M.N. 1988. Mr. Bowring.

ILEO-CÆCAL JUNCTION: Carcinoma. 35·3 : 66·3

This specimen shows the ileo-cæcal region, with the appendix, and the commencement of the large intestine. The wall of the cæcum is the site of a large cancer, which has caused an irregular thickening. The surface is ulcerated and broken down. The cancer has invaded the tissues of the mesentery at the ileo-cæcal junction.

Microscopic examination shows the tumour to be a soft glandular cancer. The epithelial cells of the growth are arranged in alveoli, which are surrounded by a small amount of matrix of delicate connective-tissue. There is very little round-cell infiltration in the matrix. The epithelial cells are of the rounded cuboidal type, with fairly large nuclei in which the nucleolus is prominent. One or two very large cells can be observed in the alveoli.

M.N. 1989. D.B. 2946.

ANUS: Epithelioma. 35·6:66·1

Extending all round the anal opening there is a fungating tumour, the surface of which shows a tendency to break up into minute papillæ. The tumour has extended also for some little distance into the wall of the rectum. The structure is that of a squamous epithelioma.

M.N. 1990. D.B. 2880.

RECTUM: Sarcoma. 35·5:65·3
35·5:25·1

The specimen is a portion of the rectum which has been the site of a malignant stricture. The tumour growth has almost completely obstructed the lumen, and has led to the formation of a dense mass of tissue, part of which assumes a somewhat nodular form on the peritoneal aspect.

Microscopically, the wall of the intestine is found to be extensively infiltrated by a tissue composed of ovoid cells with deeply-staining nuclei, and a relatively small amount of protoplasm. These cells lie in the meshwork of a very fine reticulum of delicate fibrils. The tumour belongs to the oat-seed type of sarcoma.

M.N. 1991. D.B. 2879.

RECTUM: Malignant Stricture. 35·5:66·3
35·5:25·1

The lumen of the rectum is very much expanded above, but below it contracts to small dimensions, just enough to allow the passage of a black-lead pencil. The whole thickness of the wall dips in at the level of the stricture. The mucous membrane exposed above the point of stricture for a considerable distance is uniformly thickened around the whole lumen.

M.N. 2000. D.B. 1780. Dr. Harris.

VERMIFORM APPENDIX: Secondary Lympho-Sarcoma. 35·3:65·9

The specimen shows the vermiform appendix with its mesentery attached. Situated on the surface of the mesentery are large numbers of small globular tumours attached to the tissue by delicate pedicles. They vary in size, from a small pea to a small nut. The surface is smooth and covered with peritoneum. These tumours are secondary to a lympho-sarcoma in the omentum, mesentery, and abdominal lymphatic glands.

The patient was a male, aged 39. (See Kelynack, "Pathology of the Vermiform Appendix," p. 140.)

M.N. 2005. Mr. Southam.

RECTUM: Lympho-Sarcoma. 35·5:65·9

The wall of the rectum is occupied by a large tumour mass, which has infiltrated the whole circumference. It presents an ulcerated surface. The floor of the ulcer consists of a felted mass composed of fibrous septa from the interstices of which the cells of the tumour have fallen out. At one point the tumour growth has extended to the serous surface, and this has been followed by perforation.

The microscopic section shows that the tumour consists of a fine matrix of fibrous tissue, present in the form of septa, enclosing areas apparently composed of small round cells of a sarcomatous type. The protoplasm is very much vacuolated, and the nuclei refuse to take the stain. The tumour is most probably a lympho-sarcoma.

M.N. 2250. D.B. 4657. Mr. Stanmore Bishop.

SIGMOID FLEXURE: Malignant Stricture. 35·4:66·4 (42·7)
35·4:25·1

The specimen shows the sigmoid flexure of the intestine, the seat of a cancerous growth which has given rise to great thickening of the wall of the bowel, and caused marked obstruction of the lumen. The surface of the tumour is very irregular.

Microscopically, the tumour is an adeno-carcinoma, in which the alveoli are lined by tall columnar epithelium. At a number of points the cells show early colloid degenëration.

M.N. 2251. D.B. 4656. June, 1900. Mr. Stanmore Bishop.

SIGMOID FLEXURE: Malignant Stricture. 35·4:66·4
35·4:25·1

The specimen shows the sigmoid flexure of the large intestine, the seat of a carcinoma which has caused thickening of the walls, irregularity of the surface of the mucous membrane, and obstruction to the lumen.

M.N. 2254. D.B. 4633. June 29, 1905. Mr. Stanmore Bishop.

RECTUM: Carcinoma. 35·5:66·3

For about 4 inches the wall of the rectum is in a condition of cancerous growth. The specimen has been bisected, and it is seen that the lumen of the tube is almost completely occupied by a fleshy cancerous growth which has sprung from the mucous membrane. Secondary nodules of growth are seen in the peri-rectal tissue.

Microscopic examination shows the tumour to be a medullary glandular carcinoma.

M.N. 2255. D.B. 4577. March 9, 1905. Mr. Stanmore Bishop.

RECTUM: Squamous Epithelioma. 35·5:66·1

The rectum is the seat of a cancerous growth, which has at one point caused marked stenosis of the lumen, and has formed a large, smooth, rounded mass, which projects considerably on the skin surface.

Microscopical examination shows the structure to be that of a squamous epithelioma.

M.N. 2618A. D.B. 3720. P.M.M. 1899, No. 147. Oct. 2, 1899.
Dr. Graham Steell.

SIGMOID FLEXURE: Carcinoma. 35·4:66·4

The sigmoid flexure was found closely adherent to the pelvic viscera, and on opening it there was found a large mass of fungating cancerous growth, papillomatous in form. The tumour had extended through the wall of the gut and infiltrated the wall of the bladder. The specimen shows the greater part of the intestinal growth and a portion of the uterus to which the area of intestine affected had become adherent.

Microscopic examination shows the tumour to be a columnar-celled carcinoma.

The patient was a woman, aged 56, who had suffered from hæmaturia and decomposition of urine during the last few weeks of life, and incontinence had begun 6 months before death. She had also incontinence of fæces at the time of admission. There was no other intestinal symptom.

M.N. 2806. D.B. 4015. P.M.S. 255. Oct. 31, 1902. Mr. Montgomery.

SPLENIC FLEXURE: Columnar-Celled Carcinoma; Stenosis and enlargement of the Solitary Follicles.

35·4:66·4
35·4:25·1
35·4:62·1
42:55·1

The transverse colon is moderately dilated and slightly hypertrophied. Enlarged, white, solitary follicles are seen on the surface. A hard, nodular, firm mass is found in the splenic flexure. The inner surface shows a large, annular ulcer, with thickened, hard, raised edges. The longitudinal extent of the growth is 2 inches. The lumen was here reduced to $\frac{1}{16}$in. diameter. The serous coat was normal.

Microscopically the growth was a columnar-celled carcinoma, with a moderate amount of contracting fibrous stroma. There is marked increase in the muscular wall at the site of the tumour.

The patient, a female aged 42, came in suffering from intestinal obstruction. There was one small secondary nodule in the liver.

M.N. 2832. D.B. 4088. P.M.S. 315. May 25, 1903. Mr. Platt.

RECTUM: Carcinoma with Stenosis.

35·5:66·4
35·5:62·1
35·5:25·1

The mucous surface shows an irregular but not extensive ulceration, with a tendency to annular distribution. The edges of this ulcer are firm. The floor is grey and firm. There is no evidence of sloughing or hæmorrhage. There was incomplete stenosis of the bowel. Above, the wall of the bowel is hypertrophied, and below it is atrophied. Above, there is also a saccule in the wall. There was one nodule in the right lobe of the liver.

Microscopically, the tumour is an adeno-carcinoma, with invasion of the submucous, and, to a slight extent, of the muscular coat. There is an abundant stroma.

The patient was a male aged 65.

M.N. 2925. Mr. Stanmore Bishop.

SIGMOID FLEXURE: Carcinoma. 35·4:66·4
35·4:25·1

The specimen consists of a portion of the sigmoid flexure. At both ends of the specimen the mucous membrane has been everted, and there is seen growing apparently from nearly the whole circumference of the wall a papilliform adeno-carcinoma, which has almost completely blocked the lumen.

The patient, a female, aged 62, complained of severe pain in the epigastrium, and right hypochondrium one month before examination. There was no passage of flatus or fæces for 14 days, and distension was increasing. At the operation distension was found down to the sigmoid flexure, where a large volvulus existed. Below the obstruction the bowel was collapsed. The stricture was excised and the bowel reunited by Stanmore Bishop's bobbin. Death occurred four days after operation.

M.N. 3029. Mr. J. W. Smith.

COLON: Carcinoma; Peritonitis. 35·4:66·4
38:54·2

The specimen consists of part of the sigmoid flexure of the large intestine. The upper part has been opened by a longitudinal incision, and there is seen situated in the lumen a rounded cancerous mass, the surface of which is somewhat irregular, discoloured, and shows evidence of necrosis, but not of marked ulceration. A glass rod is placed in the position of the lumen, and shows the degree of obstruction which has been caused. The wall of the intestine above the site of the tumour is somewhat dilated, but is not hypertrophied. The peritoneal aspect of the bowel shows a fibrinous deposit and a good deal of discoloration. There is also evidence of extension of the tumour to the peritoneal coat.

M.N. 3031. Mr. Collier.

RECTUM: Carcinoma. 35·5:66

The specimen consists of a portion of the rectum, which has been excised. It is opened longitudinally to show the interior of the bowel. The wall is markedly thickened by new growth, which completely encircles the lumen

for a distance of three inches. There is superficial ulceration in the lumen over an area the size of a crown piece. The upper limit of the growth is well defined as an annular thickening of the mucosa.

The patient was a female, aged 27 years. For four months there had been alternating attacks of constipation and diarrhœa, occasional vomiting, anæmia and loss of flesh. The growth was situated 2 inches from the anus, and was removed through the perineum, leaving the sphincter intact. Three or four of the lymphatic glands were enlarged to half an inch in diameter. Some control over the bowels was retained. Operation October 21, 1903.

M.N. 3047. Sept. 6, 1901. Mr. J. W. Smith.

CÆCUM: Carcinoma. 35·3 : 66·4

The specimen consists of the cæcum, which has been resected for carcinoma. The growth, in the form of pendulous masses, completely encircles the bowel for an extent of one inch. The lumen is one-third of an inch in diameter. The wall of the cæcum is thickened.

Microscopically the tumour is a columnar-celled carcinoma.

The patient was a female, aged 53 years. There was a history of chronic intestinal obstruction of three months' duration. Symptoms of acute obstruction followed. On September 6, 1901, the growth was fixed outside the abdomen and the bowel opened above. Ten days later the growth was resected, and the artificial anus was subsequently closed. The patient died, from recurrence of the growth, 20 months later.

M.N. 3160 Mr. Collier.

LARGE INTESTINE: Carcinoma. 35·4 : 66·3

The specimen is a portion of the transverse colon, which has been resected for carcinoma. The bowel has been bisected in the axis of its lumen, The growth extends along the bowel for a distance of about 3 inches. In the section through the wall of the bowel the growth has a white opaque appearance, and is studded with minute yellow dots. The growth has destroyed the lining of the bowel, forming two distinct ulcers with an area of swollen mucous membrane between. The ulcers have an irregular raised and everted edge

and a roughened floor. The bowel on the proximal side to the right of the tumour is distended and on the distal side is contracted.

Microscopically the epithelial processes of the tumour are seen as elongated strands of cells, somewhat compressed by the copious development of fibrous matrix, and a large amount of round-celled exudation.

The patient was a man, aged 55 years, who had suffered from attacks of vomiting and constipation for two years. There was general abdominal distension, and the tumour could be felt in the right linea semilunaris. The growth was found in the transverse colon, and the bowel was resected and joined by end to end suture. The patient made an uninterrupted recovery.

M.N. 3171. D.B. 3461. P.M.S. 1896, No. 52. Sept. 17, 1896. Mr. Jones.

SIGMOID FLEXURE: Carcinoma. 35·4:66·4

At the upper part of the sigmoid, over an area of $1\frac{1}{4}$ inches, there was marked contraction. The gut was freely movable at this point, and not adherent to surrounding tissues. The cancer formed an annular growth 2 inches long, the edges of which were raised and thickened, and the centre ulcerated. There were no secondary growths.

M.N. 3181. D.B. 4392. Mr. Collier.

RECTUM: Carcinoma. 35·5:66·3
43·5:66·3

The rectum is the site of a carcinoma, which has infiltrated the walls, causing ulceration on the surface and replacing the normal structures. Attached to it is a gland which is the site of a secondary growth.

The patient was a woman, aged 27 years, who had suffered for 3 months from alternate attacks of constipation and diarrhœa. There was marked loss of flesh. The growth was situated 2 inches from the anus, and involved the whole lumen for a distance of $1\frac{1}{2}$ inches. The rectum was excised by the perineal route on Oct. 21, 1903. Recovery, with partial control over the sphincter, followed. She subsequently died of recurrence.

M.N. 3183.

CÆCUM: Colloid Carcinoma. 35·3:66·3 (42·7)

The cæcum, with a portion of the ileum and colon, was resected for new growth. The cæcum is greatly expanded through the infiltration of its walls with colloid carcinoma. A portion has been removed, and shows large irregular masses of growth projecting into the lumen. The normal structure of the wall is lost, and is replaced by a thick layer of colloid growth. The adjacent portions of intestine are normal in appearance. A few lymph glands are seen, apparently involved by the carcinoma.

M.N. 3201. D.B. 4423. June 18, 1904. Mr. Collier.

RECTUM: Carcinoma 35·5:66·4

The rectum is the site of a papilliform cancer. The growth extended for 3 inches along the lumen, and completely encircled it. The surface is exceedingly rough owing to the papillary structure, and has a greyish discoloration. At the back of the specimen a few small nodules of secondary growth can be seen.

The patient was a man, aged 56 years. In May, 1903, he first began to suffer from pain during defæcation with passage of blood and mucus, accompanied by a good deal of straining. There was considerable loss of flesh. The growth was situated 3 inches from the anus, and was not fixed to the surrounding structures. Colotomy was performed May 18, 1904, and the rectum was excised by the sacral route June 18, 1904.

M.N. 3202. D.B. 4424. Mr. Southam.

COLON: Carcinoma. 35·4:66·3 (42·7)

The specimen consists of a portion of the sigmoid flexure of the colon resected for new growth. The bowel has been laid open to expose the lumen. Towards the lower part of the specimen the mucous membrane can be seen infiltrated and disorganised by a carcinomatous growth. An ulcer has formed on the surface of the carcinoma, but in spite of this there has been marked obstruction. The mucous membrane is thrown into large folds. The serous coat shows roughening on the surface and immense thickening from inflammatory œdema.

Microscopically, the specimen was a carcinoma undergoing colloid degeneration.

M.N. 3218. D.B. 4427. Mr. Collier.

RECTUM: Carcinoma.

35·5:66·4
35·5:27
43:66·4

The lower portion of the rectum has been laid open. The growth shows an ulcer involving round three-fifths of the bowel. The floor is somewhat deeply excavated, and has a roughened surface. The margin, especially at the upper end, is considerably raised above the surrounding mucous membrane. The lumen of the bowel above the growth is distended. Two lymphatic glands also are seen infiltrated with carcinomatous growth.

Microscopically, the tumour was a columnar-celled carcinoma.

The patient was a man, aged 66 years, who had suffered alternately from constipation and diarrhœa with passage of blood for 18 months. There was considerable emaciation. Colotomy was performed July 2, 1904, and the rectum excised by Kraske's method on July 18. Recovery was uneventful.

M.N. 3230. D.B. 4367. P.M.S. 431. March 27, 1905. Mr. Wright.

LARGE INTESTINE: Carcinoma.

35·4:66·3
35·4:25·1
35·4:62
35·4:22

The tumour is of the flat scirrhus variety, and has caused a thickening and contraction of the walls of the intestine, but the stenosis resulting is partly neutralized by marked ulceration. Above the site of the tumour the wall of the intestine is considerably hypertrophied, and at one point a rounded perforation has taken place. The wall of the bowel around this opening is markedly congested.

Microscopically the structure is that of a glandular carcinoma.

The patient was a woman aged 63 years, who was operated upon for intestinal obstruction. The patient died from shock. The peritoneum was normal.

M.N. 3249. Mr. Collier.

TRANSVERSE COLON: Carcinoma. 35·4:66·3
35·4:25·1
38·1:66·3

The specimen consists of a portion of the transverse colon with the corresponding part of the omentum. The wall of the intestine is the site of a scirrhus carcinoma which has formed a dense annular mass causing obstruction. The mucous surface is ulcerated, but in spite of this the lumen is very much narrowed. In the portion of omentum there is a metastatic growth the size of a walnut. There are also one or two small secondary nodules in the immediate neighbourhood of the primary growth.

Microscopically the tumour was a columnar-celled carcinoma.

The patient was a woman, aged 50 years, who had suffered for 3 months from abdominal pain, flatulence, and attacks of constipation, accompanied by vomiting, and relieved with difficulty by enemata. The mass could be felt to the right of and above the umbilicus, quite mobile. Laparotomy, resection, and end to end suture were performed successfully, March 6, 1905.

M.N. 3341. D.B. 208. P.M.S. 1881, No. 186. January 27, 1886.
Dr. Dreschfeld.

RECTUM: Cancerous Stricture. 35·5:66·3
35·4:25·1

This very narrow stricture of the rectum was situated 8 inches above the anus. There was no thickening of the neighbouring peritoneum, but the lymph glands were invaded. Above the stricture, for about 1 inch, the mucous membrane was ulcerated. The ulcers were superficial and without induration of the base, and were probably due to the accumulation of fæces. There was immense distension of the whole length of the large intestine. The wall was thinned and the lumen was filled with semi-solid fæces. There were areas of hæmorrhagic infiltration in the wall of the intestine.

M.N. 3427. D.B. 4244. Oct., 1894.

DESCENDING COLON: Carcinoma. 35·4:66·4
35·4:22

The specimen is a segment of the descending colon. About the junction of the lower and middle third of the specimen there is a flat, cancerous growth, which has caused marked thickening of the wall round the whole lumen. The surface of the tumour is nodular and slightly ulcerated, and the whole mucous membrane is markedly discoloured. Immediately below the tumour there is a rounded ulcer which has led to a perforation of about the size of a threepenny piece, in the peritoneal coat.

Microscopic examination shows the tumour to be an adeno-carcinoma. The alveolar spaces are lined by tall columnar epithelium.

M.N. 3560. D.B. 4570. May 26, 1905. Mr. Southam.

CÆCUM: Carcinoma. 35·3:66·3 (42·7)

In the wall of the cæcum a window has been cut to show the interior. The ileo-cæcal valve has been replaced by a large tumour mass which has almost completely obstructed the lumen, and which projects markedly into the lower end of the ileum.

On microscopical examination the tumour is seen to be of the scirrhus type, but shows fairly extensive colloid degeneration.

M.N. 3581. D.B. 4707. Oct. 18, 1905. Dr. Melland.

SMALL INTESTINE: Lympho-Sarcoma. 35·2:65·9

The specimen shows a portion of the upper part of the small intestine. In the mucous membrane are to be found a number of raised, saucer-like growths. The upper surface is somewhat rough, but the edges are rounded and smooth. The peritoneal coat is normal.

Microscopical examination of one of the nodules shows that the outer surface is in a state of necrosis. The tumour tissue is composed of small round cells, arranged in a columnar form and separated from each other by

fibrous connective tissue in delicate strands. In the submucous coat there is a general infiltration of small round cells, which show a marked tendency to arrange themselves in rows and run in lines along the circumference of the bowel. The muscular coat is partly infiltrated by the cells of the same type. (See liver M.N. 3582—36 : 65·9, pancreas M.N. 3583—37 : 65·9, kidney M.N. 3584—51 : 65·9.)

M.N. 3615. D.B. 4770. Mr. Smith.

SIGMOID FLEXURE OF COLON: Carcinoma, Stenosis, Hypertrophy and Dilatation. 35·4 : 66 / 35·4 : 25·1 / 35·4 : 62·1

The specimen consists of the sigmoid flexure, the greater portion of which is enormously distended and hypertrophied, the longitudinal muscular bands being especially prominent. The condition of the bowel is due to the presence of a carcinoma, which has been exposed by reflecting a portion of the intestinal wall. The growth almost fills the lumen, which is now scarcely the size of a goose-quill.

The patient was a man, aged 41 years. He had suffered from symptoms of chronic intestinal obstruction for about eight months, and there had been no action of the bowels for seventeen days previous to operation. There was considerable distension of the abdomen, but no tumour could be made out. On December 2, 1905, the portion of the bowel was resected and the ends were sutured to the wound in the abdominal wall.

M.N. 3638. Mr. Montgomery.

LARGE INTESTINE: Carcinoma. 35·4 : 66 / 35·4 : 25·1

The specimen is about $2\frac{1}{2}$ inches of the large intestine cut longitudinally. The section shows in the middle portion of the specimen a carcinoma infiltrating the wall of the gut. It is composed of soft white tissue, and its growth has destroyed and replaced the wall of the bowel. The surface of the middle part of the growth is ulcerated. The lumen is almost completely occluded. The muscular coat above the growth is considerably hypertrophied. Secondary nodules can be observed in the fat and under the peritoneal coat.

The patient was a female, aged 51 years. The bowel was resected March 14, 1902.

M.N. 3641. Mr. Montgomery.

CÆCUM: Carcinoma. 35·3:66

The specimen consists of the cæcum with a portion of the ileum and ascending colon resected for carcinoma. Part of the anterior wall of the cæcum has been removed to show the growth. It measures 3 inches in diameter, and is raised half an inch above the surrounding mucous membrane. Its surface is irregular and ulcerated. Half the lumen of the bowel is involved, and the orifice of the ileo-cæcal valve is constricted, and just admits the glass rod, which indicates its position. The cæcum is distended, and its wall thinned.

The patient was a male, aged 59 years, and gave 3 months' history of colicky pain in the abdomen and melæna. A lump had been noticed in the region of the cæcum. Operation was performed Nov. 5, 1903. The cæcum was resected, and the ends of the ileum and ascending colon were sutured to the abdominal wound. On Dec. 18, 1903, the end of the colon was closed by suturing, and the end of the ileum was implanted laterally into the colon. Recovery was uneventful.

M.N. 3642. Mr. Montgomery.

LARGE INTESTINE: Carcinoma. 35·5:66
35·5:25·1

This portion of the large intestine was resected for malignant growth. The bowel has been opened longitudinally and spread out. The growth, which is $1\frac{1}{2}$ inches in length, involves four-fifths of the circumference, and presents a raised irregular surface, which is partly ulcerated. The lumen was not markedly constricted. The wall of the bowel is thickened at the site of the growth. Above the growth the intestine is distended and its walls thinned out between the hypertrophied longitudinal muscle bands.

The patient, a male, aged 46, had suffered from diarrhœa and rectal tenesmus for 3 months. Laparotomy was performed on April 5, 1904. The growth was found at the junction of the sigmoid flexure and the colon. Recovery was uninterrupted.

M.N. 3745. D.B. 4840. Feb. 15, 1906. Mr. Wright.

LARGE INTESTINE: Carcinoma. 35·4:66·4
35·4:25·1

The tumour has formed a considerable mass of growth in and around the wall of the gut. It has incorporated in its midst a nodule of subserous fat. The wall is completely replaced by the tumour, and it has extended laterally for a short distance in all the walls of the bowel. It has reduced the lumen to the diameter of a lead-pencil.

Microscopically the tumour is a columnar-celled carcinoma.

The patient was a woman, 40 years of age. She had suffered from partial intestinal obstruction for some months. The obstruction became complete a week before operation. Colotomy was performed, and the growth was left outside the abdominal wall and was excised 5 days later. Recovery was satisfactory.

INTESTINE: PARASITES.

M.N. 2016. D.B. 1168. Oct. 13, 1890. Dr. Dreschfeld.

INTESTINE: Ascaris Lumbricoides. 35 : 71 · 2

The parasite had partly passed through a button while in the intestine of a child.

M.N. 2017. D.B. 1089. June 2, 1890.

INTESTINE: Ascaris Lumbricoides. 35 : 71 · 2

M.N. 2018.

INTESTINE: Ascaris Lumbricoides. 35 : 71 · 2

M.N. 2021. D.B. 2778.

INTESTINE: Tænia Mediocanellata. 35 : 71 · 1

M.N. 2022.

INTESTINE: Tænia Mediocanellata. 35 : 71 · 1

M.N. 2024. D.B. 2777.

INTESTINE: Tænia Mediocanellata. 35 : 71 · 1

M.N. 2025. D.B. 2779.

INTESTINE: Tænia Mediocanellata. 35 : 71 · 1

INTESTINE: OPERATIONS.

M.N. 1929. Dr. Leech.

ARTIFICIAL ANUS. 35·4:91
35·4:66·3

The specimen shows a dissection of the structures involved in the formation of an artificial anus in a case of cancer of the descending colon. The external skin surface presents a wound to the edges of which the intestinal wall is sutured by silk sutures. Internally a segment of large intestine is seen with a part of it bound to the inner surface of the adjoining wall at the point corresponding to the opening. To the right side is the lower end of the segment of bowel, and this has been opened to show the obstruction of the lumen due to cancer, the site of which is marked externally by a constriction in the wall.

M.N. 1930. Mr. Bowring.

ARTIFICIAL ANUS in a case of Cancer of the Rectum. 35·4:91

This specimen consists in a dissection to show the parts involved in the formation of an artificial anus. The descending colon is seen bound to the opening in the abdominal wall by silk sutures.

The patient lived 7 days after the operation.

M.N. 1931. Mr. Bowring.

ARTIFICIAL ANUS. 35·4:91

The specimen shows the opening on the skin surface communicating with the large intestine about the region of the sigmoid flexure. The patient suffered from cancer of the rectum, and died 3 weeks after the operation.

M.N. 2013. D.B. 887. Oct. 19, 1889.

SMALL INTESTINE: Resection. 35·2:91

This specimen of an intestine, after a recent operation by resection had been performed, shows a moderate degree of peritonitis in the region of the sutured junction.

M.N. 3087. Mr. Southam.

SMALL INTESTINE: Fæcal Fistula. 35·2:91
35·2:22

The specimen consists of a portion of small intestine about $2\frac{1}{2}$ ins. long. Its wall is deficient on the antimesenteric surfaee, leaving an opening involving about three-fifths of the lumen.

The patient was a female, aged 47 years, who had had a small femoral hernia on the left side for three years. Three weeks before admission to the Infirmary the hernia beeame irreducible and an abscess formed over it. The abscess was opened and a fæcal fistula resulted. The loop of bowel was freed from the femoral ring to which it was adherent, and was resected December 5, 1903. Recovery was uneventful.

LIVER; CONGENITAL ABNORMALITIES.

M.N. 250. D.B. 703.

LIVER: Congenital Lobulation. 36 : 12

The liver presents the normal smooth surface; but over both the upper and especially the under and posterior aspects, there have developed a number of stellate and longitudinal fissures reaching to a considerable depth in the substance of the liver. The lobulation is specially well marked at the posterior termination of the transverse fissure.

M.N. 3701. D.B. 4816. P.M.S. 488. Feb. 2, 1906. Mr. Platt.

LIVER: Transposition. 36 : 11
36 : 42 · 3

The organ weighed 73 oz., and was taken from a female, aged 31, in whom was found complete transposition of the viscera. The liver has its larger lobe with the gall-bladder on the left side. The organ is enlarged as a whole, and has a tense, smooth, glistening surface; it is the seat of extremely well-marked fatty infiltration. (See heart M.N. 3700—12 : 11, and lung M.N. 3699—25 : 11.)

LIVER: MECHANICAL LESIONS.

M.N. 3331. D.B. 1922. P.M.S. 1892, No. 58.

LIVER: Rupture. 36:21·7

An irregular lacerated wound is seen near the falciform ligament, which almost completely separates the left lobe from the liver. The abdominal cavity contained a large quantity of blood.

The patient was a male, aged 31, who was run over by a cab.

LIVER: CIRCULATORY DISORDERS.

M.N. 2783. D.B. 3736.

LIVER: Chronic Venous Congestion. 36 : 32 · 2
36 : 42 · 3

The specimen consists in an antero-posterior slice of the liver. The colour has been preserved, and the specimen is mounted in gelatin. The tissue presents a characteristic mottled appearance. Where the mottling is well defined the contrast is clearly seen between the yellow opaque liver epithelium and the dark-coloured, deeply-congested portal capillaries. The condition is not, however, equally well-developed over the whole of the section. In some areas the liver tissue still remains opaque, white in colour, with a comparatively small amount of congestion. The appearance is typical of "nutmeg liver."

M.N. 3306. D.B. 4359. P.M.M. 700. March 17, 1905. Dr. Steell.

LIVER: Chronic Venous Congestion, "Nutmeg." 36 : 32
36 : 42 · 3

The liver is enlarged. Its contour is normal. It felt firm, and weighed 74 oz. The capsule is slightly opaque and thickened. It is smooth, and shows well-marked purple and yellow mottling. On section the characteristic mottling of chronic venous congestion (purple) and fatty infiltration (yellow) is seen. The congestion is much more marked in some areas than in others, and here the brown opacity of the normal liver cells has been replaced by the purple congested capillaries.

From a case of chronic cardiac failure in a man, aged 36, the subject of chronic Bright's disease. (See heart M.N. 3307—12 : 34·1, and kidney M.N. 3308—51 : 52·2.)

M.N. 3366 A. & B. D.B. 4281. July, 1904. Dr. Dixon Mann.

LIVER: Hæmorrhage. Necrosis.. 36 : 33
36 : 44 · 1
15 · 1 : 55 · 6

The specimen consists of a section of liver removed from a case of obstruction of the inferior vena cava. The vena cava was almost entirely obstructed at the inferior margin of the liver. Chronic peritonitis and peri- and endo-pylephlebitis were general. The superficial abdominal veins were dilated. The lumen of many of the portal veins was diminished in size. The hepatic veins were also slightly thickened, and the caval orifices of the terminal hepatic veins were entirely occluded by the extension of the endo-phlebitis of the vena cava. The peritoneum covering the liver is much thickened. The cut surface exhibits alternating pale and dark-red areas. Both involve portal and hepatic vein areas. In addition there are zones of translucent pale areas. The portal systems contain an excessive amount of fibrous tissue.

Microscopically, the pale areas consisted of necrotic liver tissue, and the dark areas were composed of hæmorrhagic extravasations more or less organised.

The patient was a female, aged 27, who died $3\frac{1}{2}$ months after the onset of phlegmasia dolens. (See Dixon Mann and Walker Hall, *Edin. Med. Journ.*, July, 1904.)

M.N. 3673. D.B. 4751. P.M.M. 781. Nov. 27, 1905. Dr. Harris.

LIVER: Chronic Venous Congestion. 36 : 32 · 2

The liver weighed 61 oz. Its surface is smooth. The parenchyma is pale and of firm consistence. The cut surface shows a number of well-marked patches of passive congestion sparsely scattered throughout its substance.

Microscopic examination did not show anything unusual in this case.

The patient was a male, aged 36, who died from mediastinal sarcoma. (See thymus gland M.N. 3672—44 : 65·1.)

M.N. 3675. D.B. 4782. P.M.M. 785. Dec. 19, 1905. Dr. Graham Steell.

LIVER: Passive Hyperæmia, Induration, Regeneration. 36 : 32 · 2
36 : 61
36 : 53

The capsule of the liver is diffusely but irregularly thickened and opaque, especially on the diaphragmatic aspect of the right lobe. Small saucer-like depressions are seen in the thickened part. The liver was firm, and weighed 37 oz. The cut surface shows a peculiar yellow mottling, especially distributed along the main branches of the portal vein, arranged in a foliaceous manner. This yellow portion projected markedly on the cut surface, which otherwise is of a dark-purple colour.

On microscopic examination marked congestion, atrophy and fibrosis of the organ is observed. The pale areas described above are composed of liver cells in a state of regeneration.

LIVER: DEGENERATION AND INFILTRATION.

M.N. 2949. D.B. 4261. P.M.M. 661. Dr. Wilkinson.

LIVER: Fatty Degeneration. 36 : 42 · 3

The liver was moderately enlarged and weighed 71 ozs. The surface is smooth, paler than normal, and of firm consistence. On section the liver is seen to be in a state of moderately advanced fatty degeneration. This is more marked in some regions than in others, and a few small areas may be seen in which it is excessive. (See heart M.N. 2948—12 : 62·1.)

M.N. 3266. D.B. 2355. P.M.M. 1893, No. 211. Feb. 12, 1894. Dr. Harris.

LIVER: Fatty Degeneration 36 : 42 · 2

The specimen shows the whole liver. The parenchyma of the organ is in a condition of advanced fatty degeneration, and as a result of this the organ is large (6 lbs. 4 ozs.), and it has a smooth capsule. The finer markings on the cut surface are lost, and the whole tissue has the characteristic creamy-yellow colour of advanced fatty degeneration.

The patient was a female aged 40, and there was a history of excessive alcoholism. She suffered also at the time of death from profound anæmia, fatty degeneration of the heart, and pulmonary tuberculosis.

M.N. 3361. D.B. 4593. June 10, 1905. Dr. Reynolds.

LIVER: Lardaceous Infiltration with Tuberculous Peritonitis. 36 : 42 · 5
38 : 56 · 2

The specimen shows a portion of a very large, waxy liver, from a case of general tuberculous peritonitis. The liver has the solid, firm, sharply defined, glistening appearance characteristic of advanced waxy degeneration. On the serous surface may be seen somewhat large, yellowish, miliary tubercles, irregularly distributed.

M.N. 3522B. D.B. 4708. Oct. 19, 1905. Mr. TELFORD.

LIVER, SPLEEN, KIDNEY: Amyloid Infiltration. 36 : 42 · 5
45 : 42 · 5
51 : 42 · 5

All the organs have a semi-translucent and "bacony" appearance. The liver, in addition, shows some mottling. The Malpighian bodies of the spleen appear as small, round, transparent areas, which resemble grains of boiled sago. The kidney is pale in colour, presents considerable congestion of the vessels, and has a distinct waxy appearance.

Microscopically, the media of the hepatic arteries, the interstitial tissues, the Malpighian bodies of the spleen, and the splenic arteries, the glomeruli, and arteries of the kidney, all show distinct amyloid changes.

The patient was a boy aged 5 years, with a 2 years' history of tuberculosis of the hip-joint. (See lung M.N. 3522A—25 : 56·1.)

M.N. 3695. D.B. 4820. P.M.M. 801. Feb. 5, 1906. Dr. HARRIS.

LIVER: Cloudy Swelling. 36 : 42 · 1

The specimen is a section of a liver from a case of croupous pneumonia. The organ was enlarged and its cut surface was very dry. It shows the characteristic turbid appearance of cloudy swelling. (See lung M.N. 3694—25 : 54·2.)

LIVER AND GALL BLADDER; CALCULI.

M.N. 327. D.B. 537. P.M.M. 1886, No. 86. July, 1887. Dr. Dreschfeld.

GALL BLADDER: Obstruction of the Cystic Duct by a Gall Stone. 36·1:27 36·1:43

The specimen shows the dilatation of the gall-bladder which resulted from the presence of a biliary calculus in its neck. The hepatic duct and common bile duct were patent and normal. The gall-bladder was found full of clear and transparent mucus.

The patient suffered from an enlarged and fatty heart, and rheumatoid arthritis.

M.N. 328. D.B. 1742. April 5, 1880. Dr. Simpson.

GALL BLADDER: Gall Stone. 36·1:43

The gall-bladder has a thickened wall, and is very much distended. The reason of the distension is the presence in its cavity of a gall-stone, the size of a turkey's egg. The surface is uneven, broken, and irregularly pigmented. Crystals of cholesterin are floating in the preservative fluid.

M.N. 330. D.B. 1741.

GALL BLADDER and LIVER: Gall Stones. 36·1:43

From the posterior part of the gall-bladder a portion of the wall has been removed to show the presence of a deeply-pigmented gall-stone.

M.N. 331. Mr. Turner.

GALL BLADDER: Gall Stones. 36·1:43 36·1:27·2

The specimen shows the gall-bladder very much dilated. When taken from the body it was filled with dark-coloured gall-stones. These have been removed, and placed at the bottom of the jar. A curious crystalline deposit has formed upon the stones.

M.N. 332. D.B. 78.

LIVER: Biliary Calculi, Cirrhosis. 36·1:43
36:53

The specimen shows a portion of the liver with the gall-bladder. The liver has a slight appearance of cirrhosis, but it is in an early stage. The gall-bladder has been laid open, and shows in its interior an enormous number of biliary calculi embedded in the inspissated mucus. The wall of the gall-bladder is thickened, and the whole structure, along with the common bile duct, has been somewhat compressed by the overgrowth of connective-tissue.

M.N. 333. D.B. 1740.

GALL BLADDER: Gall Stones. 36·1:43

The specimen shows a portion of the wall of the gall bladder to which are adherent a number of angular white gall stones. At the bottom of the specimen jar there are also numerous facetted and round gall stones of smaller size than those adherent to the mucous surface. The white colour of these stones suggests that the surface layer is composed of almost pure cholesterine.

M.N. 2301.

BILIARY CALCULUS. 36·1:43

M.N. 2303—2327. Drs. Renaud, Hare, Brown.

BILIARY CALCULI. 36·1:43

M.N. 3262. D.B. 3229. Aug. 22, 1895. Mr. Whitehead.

GALL BLADDER: Dilatation from Gall Stones. 36·1:43
36·1:27

The specimen shows a small portion of liver tissue attached to which is a much dilated gall bladder. The distension was due to the impaction of a gall stone in the cystic duct.

M.N. 3337. D.B. 3468. Oct. 10, 1896. Dr. Dreschfeld.

GALL BLADDER: Distension with Gall Stones. 36 · 1 : 43
36 · 1 : 27

The liver was slightly fatty, but otherwise normal. The gall bladder formed an elongated body about $4\frac{1}{2}$ inches long, and its cavity was filled with gall stones of various sizes. The presence of this large mass of gall stones had not apparently led to any secondary lesion. There were movable kidneys, and in the small intestine a Meckel's diverticulum.

The patient was a male aged 62, and was admitted for apoplexy.

M.N. 3561. D.B. 4584. May 30, 1904. Mr. Wright.

GALL BLADDER: Gall Stones. 36 · 1 : 43

The gall bladder is not much enlarged. Its wall is thickened, and its cavity is packed with gall-stones, which are rounded, and partly facetted, and are about the size of cherries. The gall-stones apparently contain a large amount of calcareous salts and the surfaces are deeply pigmented.

LIVER AND GALL BLADDER: INFLAMMATORY LESIONS.

M.N. 254. P.M.M. 1881, No. 145. Dr. Dreschfeld.

LIVER: Hypertrophic Cirrhosis. 36 : 53 · 2
36 : 42 · 3

The liver weighed 5 lbs. 14 ozs. It was pale yellow in colour. The capsule was smooth and stretched. The borders were somewhat rounded. On section it was found to be firm and the cut surface was pale and fatty. The fatty epithelium was seen embedded in a mass of translucent tissue, but there was no amyloid change.

The patient was a woman, aged 34 years. The heart was normal, except for fatty degeneration of the muscular tissue; the spleen was enlarged and very soft; the kidneys were fatty, and there was excessive development of subcutaneous fat.

M.N. 259. D.B. 1732. May, 1888. Mr. Collier.

LIVER: Phosphorus Poisoning. 36 : 51 · 1 (87 · 3)

The liver is not much enlarged. (It is probably that of a child.) The capsule appears distended and smooth, and the whole organ is of a uniform bright yellow colour, due to fatty degeneration.

M.N. 260. D.B. 1558. July 23, 1892. Dr. Dreschfeld.

LIVER: Acute Yellow Atrophy. 36 : 51 · 1

The specimen consists in the anterior portion of the liver. The organ has been atrophied and the capsule presents a very wrinkled appearance. On the cut surface it is seen that the finer structures have completely lost their definition, and the whole tissue has a necrotic appearance.

M.N. 264. D.B. 1452. P.M.M. 1891, No. 124. March, 1892.
Dr. Graham Steell.

LIVER: Acute Suppurative Hepatitis. 36 : 54 · 5

The specimen shows a liver considerably enlarged and presenting in its substance, in the line of the falciform ligament, an area of purulent infiltration causing the liver tissue to become honeycombed with small abscess cavities. The gall bladder was contracted and embedded in a mass of structures, and in the specimen it is seen opened up with the remains of the pancreas adherent to it. In the lumen of the common bile duct there was found a triangular gall stone composed chiefly of cholesterin. The suppurative hepatitis had in this case resulted from the presence of biliary calculi. (See *Medical Chronicle*, 1892, p. 121.

M.N. 265. D.B. 926. P.M.M. 1889, No. 86. Oct. 29, 1889. Dr. Leech.

LIVER: Abscess. 36 : 54 · 5

The specimen is a small portion of the anterior border of the left lobe of the liver, the site of an abscess. There were large numbers of similar abscess cavities in the substance of the liver. There was acute inflammation of the peritoneal surface. In the portion of the liver here seen, there is an irregular abscess cavity close to the surface, and near this the liver substance is riddled with numerous smaller cavities.

M.N. 269. D.B. 1276. P.M.M. 1891, No. 12. July 6, 1891. Dr. Dreschfeld.

LIVER: Abscess—Tropical (?). 36 : 54 · 5

The liver is enlarged, and weighed 58 oz. It was normal in contour, and on the under surface of the right lobe there projected the wall of a large abscess, which contained over 10 oz. of thick, curdy, yellow pus. The wall of the cavity is somewhat roughened.

The patient was a male, aged 34. No cause for the abscess was found. The man had had malaria.

M.N. 275.

LIVER: Atropic Cirrhosis. 36 : 53

The specimen consists in the whole liver, and the surface presents the typical appearance of hob-nailed cirrhosis. The capsule has been thickened, and is drawn in by the contracting connective-tissue between the areas of liver epithelium, represented by the rounded nodules which project on the surface.

M.N. 276. Dr. Simpson.

LIVER: Atrophic Cirrhosis. 36 : 53

The specimen shows a small portion of the liver. The outer surface presents the typical hob-nail appearance of atrophic cirrhosis. The border is irregular. On the cut surface the epithelial tissue of the liver appears as small rounded islands, somewhat opaque, and separated from each other by bands of a more translucent fibrous tissue. It is to be noted that the hob-nail projections on the surface correspond to the separated rounded masses of liver epithelium.

M.N. 277. Dr. Simpson.

LIVER: Multilobular Cirrhosis. 36 : 53

The specimen shows the whole liver in a state of very marked atrophy, due to an advanced development of hob-nailed cirrhosis. The outer surface presents a very nodular appearance, each nodule being rounded and slightly raised above the level of the surface. The development of the hob-nailed condition has taken place uniformly throughout the whole organ. The gall-bladder is markedly distended.

M.N. 278. D.B. 1424. P.M.M. 1891, No. 103. Feb. 7, 1892. Dr. Leech.

LIVER: Atrophic Cirrhosis. 36 : 53
36 : 44

The organ is diminished in size, and the outer surface has the unevenness which is typical in hob-nailed cirrhosis.

Microscopic examination shows well-marked strands of fibrous tissue

surrounding large groups of lobules. There are in these strands well-defined areas of lymphoid cells, but there are no signs of the necrosis met with in gummata.

There is a very doubtful history of alcoholism. The patient had œdema of the legs, and ascitic fluid was drawn off three times. Death was due to asthenia and hæmorrhage. The stomach was found dilated by blood-clot. (See stomach M.N. 1831—34 : 33.)

M.N. 294. Dr. Roberts.

LIVER: Multilobular Cirrhosis. 36 : 53

The specimen consists in the whole liver from a boy, aged 15. A thick section has been removed from the central portion of the organ. The contour is globular and the surface, especially near the free border, is irregularly nodular from the contraction by the interstitial bands of fibrous tissue. On the surface of section the liver tissue can be seen divided up into round areas, separated from each other by the fibrous bands.

There is no history of the case.

M.N. 2781. D.B. 3961.

LIVER: Cirrhosis (mixed). 36 : 53

The specimen shows a large portion of the liver. The organ is enormously enlarged, and irregularly nodulated, giving a combination of the features of hypertrophic and atrophic cirrhosis. A large sulcus has formed across the upper surface of the right lobe. The cut surface shows that the liver epithelium is divided up into a multitude of minute islands, to a slight extent separated from each other by bands of fibrous tissue, but not nearly so much separated as in a case of typical atrophic cirrhosis. The liver cells are very yellow and fatty. The organ at the autopsy was bile-stained, and the gall bladder was distended and had thickened walls.

The patient died of strangulated hernia.

M.N. 2782. D.B. 3991. P.M.S. 169. Jan. 20, 1902.

LIVER: Multilobular Cirrhosis. 36 : 53

The specimen shows the greater part of the organ. It is large in size, and the capsule shows the hob-nailed appearance at a moderately early stage. On the cut surface the separation of the epithelial tissue of the organ into small islands, by bands of fibrous tissue can be clearly made out. These islands are, however, smaller than in a typical case of polylobular cirrhosis.

M.N. 2906. D.B. 2584. P.M.S. 1892, No. 125. Mr. Smith.

GALL BLADDER and DUODENUM: Duodenal Fistula arising in connection with impacted Gall Stones. 36 · 1 : 55 · 3
36 · 1 : 22
35 · 1 : 22

This portion of the liver has the duodenum closely adherent to it in the region of the gall bladder, and $1\frac{3}{4}$ inches beyond the pylorus there is a fistulous opening between the duodenum and the gall bladder. At the post-mortem examination there were two facetted gall stones found in the gall bladder, and another at the opening of the fistula. The gall bladder was apparently cut off from connection with the bile passages, although the common bile duct and the hepatic duct were patent. The gall bladder is much tacked down by chronic inflammation, and has a compressed, rounded, thickened appearance. An impacted gall stone had been removed at a previous operation. This, when dried weighed 2 ozs. The surface of the stone was rough, and its end was facetted. There was a considerable amount of peritonitis in the region of the fistula.

M.N. 2934. D.B. 4327. P.M.S. 420. Feb. 15, 1905. Mr. Collier.

LIVER: Portal Pyæmia. 36 : 54 · 5
15 · 5 : 34 · 2
38 : 54 · 2

The specimen consists in a section of the liver. The organ was much enlarged, and weighed 104 ozs. It was of a deep, brownish-green colour, and of normal contour. The surface shows numerous yellow patches, well-defined, not raised, mostly in groups, scattered indiscriminately over the entire organ. There were about 30 altogether; they felt soft, and many are surrounded by injected liver tissue. None are larger than a walnut. On section they are

found to be abscess cavities. The rest of the liver is opaque (due to cloudy swelling) and slightly friable. At the base of the specimen is seen an area in which the foci of suppuration are multiple. This form is observed at the beginning of the processes and later the discrete areas coalesce, giving a rosette-shaped appearance with a softened suppurating centre. Projecting into the lumen of a large branch of the portal vein in the centre of the specimen is seen the end of a white thrombus extending apparently from the adjacent area of suppuration. On the upper surface of the liver is seen a thin layer of fibrinous exudate. The case showed general suppurative peritonitis. The appendix had semi-purulent contents, but there were no signs of ulceration or perforation here or elsewhere along the alimentary tract.

M.N. 2936. D.B. 4230. P.M.M. 626. Sept. 8, 1904. Dr. Harris.

LIVER: Cholangitis. 36·2:52·1
35:51·1

The liver weighed 78 ozs. It was moderately enlarged. The surface is smooth, glistening, and of a slight yellowish tinge, and shows a granite-like mottling. Over two areas, each the size of a florin, situated on the upper surface, were found projecting numerous minute soft, bright green, cyst-like nodules of dilated bile capillaries. These are found (*a*) at the anterior margin, on each side of the falciform ligament, and (*b*) on the middle of the upper surface of the left lobe. The liver as a whole felt flabby. On section the cut surface is moist, and of a dark yellowish-brown colour, though some parts show a lighter yellow mottling. In the region of the small green cysts there are minute collections of thick yellow pus, and around these are small areas of emerald green discolouration. These areas are not seen in the bulk of the liver; they are most abundant over the left lobe, where they are extremely numerous. The gall bladder is much distended with thin green bile. Its walls are normal. There are no calculi. The hepatic and common ducts are much distended and contain thin green bile. In each hepatic duct is a dark-coloured calculus of moderately large size. The walls of these ducts appear normal. Bile could be squeezed along these channels through the duodenal orifice.

M.N. 2964. D.B. 4328. P.M.M. 695. Feb. 13, 1905. Dr. Dreschfeld.

LIVER: Hypertrophic Cirrhosis. 36 : 53 · 2
36 : 42 · 8

The organ is enlarged and weighs 66 ozs., but is of normal shape. The capsule shows universal milky whiteness, and a mosaic of small yellow lobules is visible on the surface. It is of very firm consistence. On section it cut toughly, and showed a dry anæmic surface made up of minute islands of a pale and greenish-yellow colour, separated by somewhat translucent grey-green strands of fibrous tissue which in places are as wide as the lobules. The yellow islands for the most part consist of only a few lobules. The external surface of the liver is finely granular.

M.N. 2971. D.B. 4117. P.M.M. 438. July 8, 1903. Dr. Harris.

LIVER: Multilobular Cirrhosis. 36 : 53

The liver as a whole is smaller than normal. It weighs 54 ozs., and the diminution in size affects the right lobe, so that both lobes were about equal in size. The capsule is thick and opaque. The surface is irregular from nodulations, and pale yellowish-brown in colour. The section showed lobules in groups separated by pinkish-grey strands of fibrous tissue, which were as much as $\frac{1}{8}$ in. in thickness. The lobules could be shelled out from the capsule, leaving smooth-walled cavities. The tissue as a whole was anæmic. The histological structure was typical.

M.N. 3263. D.B. 2339. P.M.M. 1893, No. 202. Jan. 30, 1894.
Dr. Graham Steell.

LIVER: Perihepatitis. 36 : 53 · 1

The liver is of normal size and weighed 60 ozs. It is more rounded than normal. The specimen consists of the anterior half of the organ, the capsule of which is thickened, from the growth of dense white fibrous tissue. A large number of small pits are observed in the thickened layer. The gall bladder has been tacked down by the capsular fibrosis. On section the liver tissue is seen to be distinctly fatty, but there are no visible strands of fibrous tissue in the liver substance.

The patient was a male, aged 58.

M.N. 3265. D.B. 3648. P.M.M. 1896, No. 160. July 20, 1897.
Dr, Dreschfeld.

LIVER: Multiple Abscesses. 36 : 54 · 5

The specimen consists in a section of the liver showing a large number of abscesses of various sizes. The liver was greatly increased in size and weighed 7 lbs. 11 ozs. The surface was adherent to the diaphragm and abdominal wall. The pus contained in the abscess cavities was very thick. The liver was yellowish brown in colour. The bile ducts were not dilated. The colon was congested and contained much mucus. There were no ulcers, old or recent. There were adhesions between the sigmoid and cæcum, and the sigmoid was drawn over and fixed to the left side of the cæcum.

The patient, a man aged 39, was admitted to the Infirmary on June 15, 1897, and gave a history of yellow fever in 1887, of malaria, of gonorrhœa, and of heavy drinking latterly. He suffered from diarrhœa and abdominal pains at the beginning of the month. Bronchitis and pneumonia were present, œdema appeared on the right side, and he sank rapidly thereafter.

M.N. 3328. D.B. 2067. P.M.M. 1893, No. 104. June 11, 1893.
Dr. Graham Steell.

LIVER: Cirrhosis. 36 : 53
36 : 42 · 8

The liver is diminished in size (weight 48 ozs.). The surface is irregular; but the nodules are not typically "hobnailed." A deep fold is found on the upper and anterior surface. The cut surface shows islands of liver tissue separated by fibrous strands, and in the liver cells there is a copious deposit of yellowish-red pigment. There were firm, fibrous adhesions between the upper surface and the diaphragm.

The patient was a male, aged 68.

M.N. 3350a. D.B. 4387. P.M.M. 707. May 6, 1905. Dr. Dreschfeld.

LIVER: Multilobular Cirrhosis. 36 : 53

The liver is very much smaller than normal (weight 25 ozs.). Its contour is much altered owing to the diminution affecting the right lobe relatively more than the left, thus giving the liver a somewhat cylindrical outline. The surface

is the seat of innumerable nodular masses averaging in size that of a cherry stone. The capsule is diffusely thickened and opaque, and there were firm adhesions to the diaphragm. The liver was of very firm consistence, and the cut surface was somewhat dry and of a brownish colour. There was very little evidence of fatty change. The strands of fibrous tissue separating the islands of lobules are very thin.

The patient was a male, aged 76. Diffuse chronic proliferative peritonitis with ascites was found at the autopsy. He had had his peritoneum tapped for the first time 27 years ago, and also twice since then, after an interval of 2 and 3 years respectively. Afterwards he was not tapped for 21 years, but subsequently several times. (See spleen M.N. 3350B—45 : 53·1, and kidney M.N. 3349—51 : 67·1.)

M.N. 3374. D.B. 4565. P.M.S. 448. May 25, 1905. Mr. Collier.

LIVER: Multilobular Cirrhosis, Miliary Tuberculosis. 36 : 53 · 1
36 : 56 · 2

The liver is of normal size, and weighed 57 ozs. The contour is markedly altered, and the surface is the seat of innumerable yellowish-brown nodules, and also of a few minute miliary tubercles. On section, it shows slightly projecting islands of a yellow and green colour, separated by well defined white strands of fibrous tissue. The cut surface is very anæmic and very tough. A few minute miliary tubercles can be seen in places. The gall bladder was somewhat distended with pale, bile-stained mucus. No obstruction was found in the bile passages.

The patient was a man aged 60, who died from caseous tuberculosis of the spleen, and acute miliary tuberculosis of the peritoneum. (See spleen M.N. 3348—45 : 56·1 and peritoneum M.N. 3355—38 : 56·2.)

M.N. 3449. D.B. 3538. P.M.M. 1896, No. 127. April 22, 1897.
Dr. Harris.

LIVER: Hypertrophic Cirrhosis. 36 : 53 · 2

The specimen is a section of the liver. The parenchyma of the organ is infiltrated with fibrous tissue, and there are large numbers of small rounded areas of epithelium in a state of marked fatty degeneration. The liver weighed

3 lbs. 3 oz. There was a considerable quantity of bile-stained ascitic fluid in the peritoneal cavity. The tissues generally showed intense jaundice.

The patient was a woman, of 41, and was admitted to the Hospital complaining of intense jaundice, enlargement of the abdomen and cerebral symptoms. There was a history of alcoholism to excess.

M.N. 3528. D.B. 4680. P.M.S. 465. Aug. 21, 1905. Mr. Wright.

GALL BLADDER: Catarrh with Ulceration. 36·1:55·3

The gall-bladder was markedly distended. Its walls felt firm, and on section it showed a marked increase of fibrous tissue evenly distributed. On the serous coat, which is otherwise smooth, is seen a small amount of recently-deposited fibrin. The gall-bladder contained a few irregular dirty orange-coloured friable gall-stones, and was filled with turbid orange-coloured bile. Almost the entire mucous membrane is affected with irregular shallow ulcers with serpiginous outlines; their bases are covered with soft bronze-green adherent slough. The rest of the mucosa is somewhat paler than normal. The bile ducts are patent and otherwise normal.

The microscopic appearance shows profound acute and chronic inflammatory changes in the wall of the gall-bladder, some areas being extensively fibrinous. There are also foci of cellular exudation.

The patient was a male, aged 82. At the autopsy the kidneys were found to be granular, and there was some slight evidence of chronic proliferative and adhesive peritonitis. In the ileum were a few sparsely scattered, minute, shallow, round ulcers with blackened edges and bases; but the mucosa was not injected, and the Peyer's patches and solitary follicles were normal.

M.N. 3569. D.B. 4699. P.M.M. 757. Oct. 10, 1905. Dr. Wilkinson.

LIVER: Multilobular Cirrhosis. 36:53

The organ is distinctly smaller than normal, but its shape is retained. The surface is, to a moderate extent, irregularly nodulated, the projections being flat, and for the most part large. The capsule is not thickened. The whole organ feels very firm and heavy, and weighed 31½ oz. On section the cut surface was anæmic, pale, and showed very little naked-eye evidence of fatty change

Microscopically the columns of liver cells show a considerable amount of atrophy. The fibrous tissue is increased in amount, and occurs in a widely-diffused form which penetrates very markedly among the gland cells, but here it is cellular, and has not compressed the parenchyma. In addition to this there are areas in which necrosis has taken place in a somewhat ill-defined form; here the epithelium is atrophied, but its place is not taken by an overgrowth of fibrous tissue to any extent.

The patient was a male, aged 17. He noticed that he was becoming pale for some months. Severe hæmatemesis followed a blow on the epigastrium, and was repeated at intervals until 4 days before his admission to M.R.I. On admission the blood examination showed extreme anæmia, but no marked increase of leucocytes. The spleen was enlarged and tender. He never rallied, but became drowsy, and died 10 days after admission. Since admission there were no signs of hæmatemesis, but two black tarry stools were passed. (See veins of œsophagus M.N. 3570—15·6(33) : 27·1.)

M.N. 3608. D.B. 3827. P.M.M. 94. Dec., 1900. Dr. Graham Steell.

LIVER: Perihepatitis. 36 : 53 · 1

The liver weighed 42 ozs., and is small in size as a whole; the left lobe being somewhat more affected than the right. The capsule is opaque, grey, and wrinkled, but the serous covering is comparatively smooth. The patient suffered from chronic mitral endocarditis with stenosis and dilatation of the heart, and proliferative peritonitis, ascites, and hydrothorax.

Microscopic examination: The capsule shows marked fibrous thickening, and strands of a fibro-cellular structure are seen passing down from it into the substance of the organ. The liver is otherwise free from cirrhosis, but the epithelial cells show considerable atrophy.

The patient was a man, aged 44. There was a history of scarlet fever at 12 years and rheumatic fever at 18 and at 32 years. He noticed shortness of breath as the first symptom of illness two years before his death. Later, œdema, and ascites set in.

M.N. 3612. D.B. 3900. June 25, 1901. Dr. Judson Bury.

LIVER: Portal Pyæmia. 36 : 54 · 5

The specimen consists in a section of a liver. The organ is obviously enlarged. Throughout the liver, but especially towards its posterior border, are present a great many cavities of irregular size and shape: some have comparatively smooth walls, and others have rough tags of tissue projecting from their walls. At several points there are numbers of small-sized cavities definitely grouped together. The larger single cavities have arisen by the confluence of similar groups. The condition was secondary to appendicitis.

M.N. 3685. D.B. 4804. Apr. 12, 1905. Prof Symmers (Belfast).

LIVER: Bilharzia Cirrhosis. 36 : 53 (71 · 3)

On the cut surface are to be seen clearly-marked strands of white fibrous tissue surrounding the portal vessels.

Microscopical examination shows this white tissue to be fibro-cellular in character. It is arranged more or less concentrically around the ova of bilharzia hæmatobium; the tissue close to the ovum being distinctly more cellular than the rest of the strand.

M.N. 3707. D.B. 4812. P.M.S. 486. Jan. 31, 1906. Mr. Wright.

LIVER: Cholangitis 36 (36 · 2) : 52 · 1

The organ was moderately enlarged as a whole, and weighed 74 oz. The upper surface is smooth except for a few scattered remains of fibrous adhesions to the diaphragm. In colour it is of a somewhat pale yellowish-green, but the tint varies greatly. The liver was very flabby. On section the green and yellow mottling is well seen, and a large number of bile ducts are visible, filled with dark, dirty-green, thick, bile-stained exudate. The larger bile ducts are filled with inflammatory débris.

Microscopic examination shows inflammatory foci in the portal area, and in some of the larger of these clumps of micro-organisms could be observed. The parenchyma of the liver in the neighbourhood shows very imperfect staining.

The patient was a man, aged 20, who had been operated on for gall-stones.

LIVER: SPECIFIC INFLAMMATIONS.

M.N. 268. D.B. 1704. July, 1883. Dr. Ashby.

LIVER: Actinomycosis. 36 : 56 · 4
36 : 54 · 5

This abscess of the liver was associated with right-sided empyema. The specimen consists in a section of the liver, a large part of which shows the alveolated cavitation brought about by the presence of suppurative inflammation due to actinomycosis.

M.N. 285. D.B. 1703.

LIVER: Syphilitic Gumma. 36 : 56 · 3

The specimen consists in a small portion of the liver. Several nodules composed of connective tissue, partly hyaline and partly caseous, are seen at the surface. There is not much retraction but the nodules are clearly defined.

Microscopic examination shows the typical partly necrosed and partly cellular tissue of a quiescent gumma.

M.N. 287. D.B. 998. P.M.M. 1889, No. 126. Jan. 18, 1890.
Dr. Graham Steell.

LIVER and LUNG: Syphilis. 36 : 56 · 3
25 : 56 · 3

The specimen consists in the right lung and the liver. The pleura is much thickened and the parenchyma of the lung is almost completely replaced by bands of fibrous tissue. The bronchi have become dilated to form bronchiectatic cavities. The liver is much deformed by syphilitic contractions. The left lobe is represented by a number of fibro-caseous nodules which are attached to the side of the right lobe of a fibrous band of tissue. On the cut surface of the right lobe are to be seen several round gummata about the size of a small cherry.

The patient was a female aged 38.

M.N. 288.

LIVER: Syphilitic Gumma, Lardaceous Infiltration. 36 : 56 · 3
36 : 42 · 5

The specimen shows a remarkable series of gummata situated in the capsule of a liver of slightly diminished size. The gummata form elevations on the surface, and they are so numerous that they cause marked irregularity in the outline of the organ. A small portion of the left lobe has been cut away to show the formation of a gummatous mass, and the hard, cicatricial tissue of which it consists, is exposed, extending for about $\frac{1}{3}$ of an inch into the substance of the liver. The parenchyma of the organ is in a condition of advanced waxy degeneration.

M.N. 289. Prof. Delépine.

LIVER: Syphilis. 36 : 56 · 3
25 : 56 · 3

The specimen shows a vertical antero-posterior section of lung and liver. Situated at the junction of the two organs, and involving a considerable part of both, there is a large rounded gumma, about 5 inches in diameter. This mass has a definite fibrous capsule; inside the capsule the tissue has become completely necrosed, and remains in a very friable condition. It is of a uniform yellow colour, somewhat deeper in tint than the bleached liver in the lower part of the specimen. At the upper border of this mass a caseous area can be observed, encroaching on the parenchyma of the lung. The lung shows a general emphysematous condition, and the bronchial walls are remarkably thickened.

M.N. 292. D.B. 237. P.M.M. 1884, No. 162. Feb. 16, 1886.
Dr. Dreschfeld.

LIVER: Syphilitic Cirrhosis. 36 : 56 · 3
36 : 53

The liver weighed 3 lbs. 7 oz. The surface is irregular from the presence of cicatrices. The left lobe was very extensively destroyed, and formed merely an appendage to the right. In addition to the rough cicatricial bands there was a considerable amount of finer connective-tissue surrounding the lobules, and in some of the bands there were some small caseous spots, about the size of a pea. The liver was not fatty. There was a large amount of ascitic fluid.

The patient was a male, aged 37.

M.N. 293. Dr. Dreschfeld.

LIVER: Syphilis. 36 : 56 · 3

The specimen shows the greater part of a liver. The organ as a whole displays a tendency to lobulation, which is characteristic of syphilitic cirrhosis, and, especially in the right lobe, there are a number of rounded gummatous nodules. The upper surface of the liver has been considerably retracted, and there has been some perihepatitis.

M.N. 299. D.B. 140. Oct. 13, 1885. Dr. Ross.

LIVER: Syphilitic Cirrhosis. 36 : 56 · 3
36 : 53

The specimen shows a small portion of a globular liver. On the outer surface are seen moderately well-marked irregular nodules. The cut surface shows the liver divided up into distinct rounded areas by thin strands of fibrous tissue, which form a wide meshwork over the whole surface.

M.N. 2747.

LIVER; Syphilitic Gumma. 36 ; 56 · 3

Situated in the midst of the liver tissue is a series of gummata; these have an irregularly rounded outline, and are composed of a compact, somewhat yellowish-looking, fibrous tissue. There is no sign of caseation or calcification, except in the very small ones at the upper portion of the section. In the angle between the two lowest of the series a more recent gumma has formed; the tissue in this case has a somewhat translucent œdematous appearance with a slightly opaque centre.

M.N. 2809. D.B. 4021. P.M.S. 267. Dec. 3, 1902.
Dr. Harris and Mr. Thorburn.

LIVER: Tropical Abscess. 36 : 56 · 7
36 : 54 · 5
25 : 54 · 5
83 · 3 : 44 · 4
25 : 44 · 4
26 : 55 · 1

There is a large cavity involving the upper part of the liver and corresponding lower part of the right lung with loss of intervening pleura and diaphragm. This conjoint cavity was 12 inches in vertical diameter. Horizontally it extended throughout the entire width of the lung, and a strip of condensed lung tissue and thickened pleura formed the posterior wall. The contents were greenish-grey, turbid, thick, foul-smelling fluid. The walls are very irregular. In the pulmonary section ragged masses of lung tissue projected into the cavity, and the pulmonary vessels were exposed. In the liver the contour was irregular and the surface was honey-combed in appearance from the deposit of caseous-like matter. A ridge of liver tissue separates the cavity into two compartments of unequal size. The lung tissue adjacent to the cavity is consolidated. The bronchi are closer together, and there is some peri-bronchial thickening. The apex of the lung is spongy. In the liver adjacent to the cavity the tissue is dense, fibrous, and semi-translucent. Below the cavity there is a patch of fibrous tissue in the liver, from which strands radiate. The rest of the liver tissue is paler than normal. No other foci of suppuration were found.

The patient was a male, aged 25. He was operated on, but did not recover.

M.N. 2888. D.B. 4214. P.M.S. 359. Jan. 25, 1904. Mr. Collier.

LIVER: Syphilitic Gumma. 36 : 56 · 3

On the upper surface, near the anterior border, and crossed by the falciform ligament, there was a ring of nodules with a central depression, firm, hard, and yellow, and adjacent to this a few smaller nodules are seen. On section the liver tissue is seen to be pale but otherwise normal. The nodules referred to lie near the surface, and have a clear outline, and a firm consistence. There is an ill-defined, grey capsule, from which strands of fibrous tissue pass into the substance of the nodule and divide it up.

Microscopically, a well-defined, necrotic mass is seen, surrounded by small-

celled infiltration, and amongst this a highly cellular fibrous matrix, non-vascular. The liver tissue near shows an increase of fibrous elements, chiefly around the portal vessels. From this, strands pass among the lobules, leading to irregular splitting up of lobules, and atrophy and distortion of the cells. The capillaries are engorged. In the periphery of the nodule there is marked endarteritis obliterans, and fatty degeneration of the liver cells near.

The patient, a female, aged 33, died from perforated duodenal ulcer.

M.N. 3252. D.B. 3494. Dec., 1896. Dr. Dreschfeld.

LUNG and LIVER: Tropical Abscess. 36 : 56 · 7
25 ; 56 · 7

The specimens consist of adjacent portions of the left lobe of the liver and the base of the left lung. These, together, were the seat of a large, tropical, dysenteric abscess. The wall of the abscess cavity, and especially the pulmonary portion, is extremely shaggy and irregular.

M.N. 3325. D.B. 3704. P.M.M. 1898, No. 15. Dec. 19, 1898. Dr. Harris.

LIVER: Tuberculosis. 36 : 56 · 2

This liver, from a child, aged 12, is enlarged, and weighs 36 oz. The surface is smooth, pale, and of soft consistence. The cut surface is very mottled owing to the presence of minute yellow areas of tuberculosis. Some of these areas are caseous, and are undergoing softening, and many show a bile duct in their centre.

Microscopically the tissue showed widespread tuberculosis and caseation. At the autopsy tuberculosis was also found affecting the lungs and pleuræ, intestine and peritoneum, kidney and spleen.

M.N. 3487. D.B 4336. Feb. 27, 1905. Dr. Ashby.

LIVER and KIDNEY: Miliary Tuberculosis. 36 : 56 · 2
51 : 56 · 2

Both the liver and kidney are studded with miliary nodules, some of which present caseous centres. There is an enlarged gland in the transverse fissure of the liver, which also exhibits tubercles. The liver is congested and fatty. The medullary and cortical vessels of the kidney also show congestion. The cortical parenchyma appears cloudy,

Microscopical examination revealed cloudy swelling of the cells of the convoluted tubules.

The specimens were taken from a rickety child, aged 7 years. The primary foci were in the bronchial glands and lungs. Miliary tubercles were present in the lungs, pleura, peritoneum, spleen, liver, kidney, and portal and mediastinal glands. (See lung M.N. 3476—25 : 56·2, and spleen M.N. 3495—45 : 56·2.)

M.N. 3489. D.B. 4371. Apr. 26, 1905. Dr. Hutton.

LIVER: Tuberculosis. 36 : 56 · 2
36 : 44 · 2

The liver presents numerous areas of tuberculous inflammation. The capsule is smooth, and through it the liver substance is seen mottled in appearance. The glands at the hilum are enlarged and caseous. On section the right lobe of the liver is seen to contain a number of small creamy-white tubercles, chiefly situated round the vessels. The larger tuberculous masses present a bile-stained necrotic centre, and a creamy-white peripheral zone of tubercles. The liver is generally hyperæmic, and in some parts an advanced stage of cloudy swelling exists. The left lobe exhibits two large tuberculous areas near the upper border. One has a caseous centre, the other is one of the larger portal areas. Similar, but smaller, patches are situated in the lower part of the lobe.

The patient was a child, aged 9 months. (See intestine M.N. 3465—35·2 : 56·1.)

M.N. 3609. D.B. 3787. P.M.M. 56. June 23, 1900. Dr. Graham Steell.

LIVER: Syphilitic Cirrhosis. 36 : 56 · 3
36 : 53

The specimen consists in a section of the liver. The organ weighed 65½ oz. The outer surface is fairly even, and was of a yellowish-white colour. The capsule is thickened, and on it are seen some shreds of fibrin. The cut surface shows a distinct red and yellow mottling. The red strands correspond to the new-formed fibrous tissue, and the yellow to islands of liver epithelium in a state of atrophy.

Microscopic examination shows an immense overgrowth of fibrous tissue with a marked tendency to penetrate between the columns of liver cells in each lobule. The bile ducts are fairly numerous, and the fibrous tissue is moderately cellular. There are, however, no distinct gummatous foci in the bands of fibrous tissue.

The patient was a male, aged 49, who was admitted to M.R.I. suffering from ascites, œdema of the feet, and loss of flesh. At the autopsy there was found a gumma in the spleen. There were also chronic adhesive pericarditis, cardiac dilatation and sero-fibrinous peritonitis.

LIVER: BENIGN GROWTHS.

M.N. 3314. D.B. 4302A. P.M.M. 683. Jan. 26, 1905. Dr. JUDSON BURY.

LIVER: Adenoma. 36 : 64 · 7

The liver is of normal size, and shape, and consistence. On section there is seen at the hinder aspect of the right lobe, where it is covered by peritoneum, a well-defined, bright, yellow nodule, with slightly irregular outline: its surface projected to a very small extent, and was slightly umbilicated and nodular. It is very firm, and appears to be split up into compartments by fine strands of grey, fibrous tissue. There seems also to be a very thin capsule. The liver tissue adjacent is normal. Histologically the tumour proves to be an adenomatous growth composed of cells closely resembling the normal cells of the liver.

The patient was a female, aged 35, who died from cerebral tumour. (See brain M.N. 3506—73 : 65·1, and lung M.N. 3370—25 : 66·4.)

M.N. 3681. D.B. 4790. P.M.S. 479. Dec. 30, 1905. Mr. THORBURN.

LIVER: Angeioma. 36 : 64 · 3

The specimen consists of a section of a liver which is seen to be the seat of two small cavernous angeiomata. Both are at the surface, and they have a purple colour, and well-defined outline. The liver is otherwise normal. The patient was a man aged 66, who died from a fracture of the skull.

LIVER AND GALL BLADDER: MALIGNANT TUMOURS.

M.N. 311. D.B. 1225B. P.M.M. 1889, No. 310. March 24, 1891.

Dr. Dreschfeld.

LIVER: Endothelioma. 36 : 66 · 5

The specimen shows a section of the liver. The capsule is somewhat rough and thickened, and at one point is adherent to the diaphragm. On the cut surface it is seen that the liver is studded with tumour growths in the form of groups of small masses or single large masses of the size of a walnut. They are somewhat lobulated in outline. The peritoneal surface was covered with similar growths. The spleen and lungs were not invaded, but the lymph glands of the thorax and abdomen were the seat of secondary deposits, while those in the axilla and groin had escaped. (See ureter M.N. 311—52 : 66·5.)

M.N. 312. Dr. Dreschfeld.

LIVER: Lympho-Sarcoma. 36 : 65 · 9

The specimen shows a portion of the liver of a child. In the transverse fissure, posteriorly, a somewhat triangular-shaped tumour projects which has a yellowish appearance less opaque than that of the substance of the liver. The primary tumour was in the omentum.

M.N. 313. D.B. 1699. Mr. Turner.

LIVER; Melanotic Sarcoma. 36 : 65 · 5

The specimen is a small portion of the liver, on the surface of which there appear rounded swellings, varying in size, and all showing a black pigmentation. On section these masses are found to be of a soft, friable texture, and to be uniformly pigmented with a brownish-black colour. The appearance of the larger nodules suggests that there has been some necrosis and softening of the tissue. The tumours in this case are of secondary origin.

M.N. 315. D.B. 90. July, 1885. Dr. Morgan.

LIVER: Melanotic Sarcoma. 35 : 65 · 5

The specimen is a small portion of the liver. The organ is studded throughout with black nodules of various sizes, which give the surface of the organ a roughened, irregular appearance. One of the larger melanotic nodules has been ruptured, and shows that the structure was soft and friable.

The history of this case is not obtainable.

M.N. 316. D.B. 85. July, 1885. Dr. Leech.

LIVER: Melanotic Sarcoma. 36 : 65 · 5

The normal contour and appearance of the outer surface has been completely destroyed by the presence of a large number of rounded nodules of various sizes. The cut surface shows that these nodules consist of a series of tumours composed of the pigmented tissue of melanotic sarcoma.

The history of the case has been lost; but these tumours are apparently secondary.

M.N. 317. D.B. 1706. Dr. Ashby.

LIVER: Melanotic Sarcoma. 36 : 65 · 5

The specimen is a section of liver, and the cut surface shows that the organ is very thickly studded with black pigmented tumours. The larger of these tumours present a more fibrous appearance. The spaces in the meshwork of fibrous strands are filled with brown pigmented material. Occurring alongside these, there are several smaller, darker, more rounded, and apparently more friable tumours. These are probably of more recent formation than the larger fibrous-looking tumours.

The patient in this case had suffered from abscess of the liver, and empyema on the right side.

M.N. 318. April, 1889. Dr. Harris.

LIVER: Melanotic Sarcoma. 36 ; 65 · 5

The specimen consists in a section of liver tissue. It is seen to be largely replaced by black, spherical masses of melanotic tissue.

Microscopic examination shows the tumour to be composed of round cells with very extensive development of pigment both in the cells, and as masses lying in the spaces of the fibrous matrix in areas from which the cells have disappeared.

No history is obtainable in this case.

M.N. 320. D.B. 289. P.M.M. 1884, No. 174. March 31, 1896.
Dr. Dreschfeld.

LIVER: Carcinoma. 36 : 66 · 3

The liver was very much enlarged, and weighed 189 oz. The whole of the right lobe is infiltrated with a malignant growth of very soft consistence. It appears as two large masses, the size of cocoanuts; the anterior one is firmer than the posterior; the latter is exceedingly soft, and appears as a large irregular cavity with rough walls.

Microscopic examination shows the tumour to be a spheroidal-celled carcinoma.

M.N. 321. D.B. 1716. P.M.M. 1884, No. 132. Oct., 1885. Dr. Ross.

LIVER: Secondary Carcinoma. 36 ; 66

The liver was very small (weight 2 lbs. 4 oz.). It was covered by recently deposited lymph, and in the substance of the organ posteriorly there is a single large mass of tumour, about the size of a small orange, and of the consistence of brain substance. There are no other secondary deposits in the organ. The primary tumour grew in the mucous membrane of the stomach near the pylorus. The abdominal organs were very much matted together.

The patient was a man, æt. 66, who suffered from extreme emaciation.

M.N. 323. Dr. Dreschfeld.

LIVER; Columnar-Celled Carcinoma. 36 : 66 · 4

The specimen shows a vertical section of the liver. The greater part of this section is occupied by large tumour masses of a roughly-rounded form, the capsules of which are in contact with each other. The cut surface of these masses is very granular and opaque, and in the centre of several of them softening and excavation has taken place.

The microscopic structure is that of a columnar-celled carcinoma.

The patient died the day after admission to M.R.I. The tumour of the liver was secondary to cancer of the stomach.

M.N. 2753.

LIVER: Melanotic Sarcoma. 36 : 65 · 5

The specimen shows a small portion of liver, and in the centre of it there is a darkly-pigmented round tumour mass, composed apparently of very friable tissue. Similarly pigmented masses of smaller size appear in other portions of the liver.

M.N. 2772. D.B. 3857. Feb. 16, 1901. Dr. Dreschfeld.

LIVER; Secondary Carcinoma. 36 : 66 · 3

The specimen shows the whole liver with a mass of cancerous growth attached to the anterior border of the right lobe. The liver is enormously enlarged, and its general contour is very much modified by the growth, throughout its whole substance, of innumerable nodules of cancer. The condition of the organ is that of general cancerous infiltration. There are none of the separate isolated nodules with umbilicated surface which appear in the ordinary type of secondary carcinoma.

M.N. 2823. D.B. 4067. P.M.M. 405. May 11, 1903. Dr. Graham Steell.

LIVER: Primary Carcinoma. 36 : 66 · 3

The liver was very much enlarged, and the increase in size affected especially the left lobe. It weighed 155 ozs. Its surface was smooth, but irregular, owing to a large number of pale yellow nodules of a somewhat soft consistence.

These nodules are scattered throughout the whole organ, and in places they are arranged in groups. The left lobe was occupied almost entirely by one large mass of this growth, very little of the liver tissue remaining, and there were some smaller nodules of the same growth. The liver parenchyma was paler than normal, and was not bile-stained. On section the nodules are seen scattered throughout the entire organ; they are more or less circular, and many have coalesced to form large, irregular areas. Their outline is distinct. The gall bladder and bile ducts were normal.

Microscopic section showed the growth to consist of cuboidal cells of the glandular type.

The patient was a male, aged 40. There was a history of 5 months' abdominal enlargement and pain, without jaundice or ascites. (See lung M.N. 2822—25 : 66·3.)

M.N. 2824. D.B. 4071. P.M.M. 394. Apr. 20, 1905. Dr. Dreschfeld.

LIVER: Primary Myxo-Sarcoma. 36 : 65 · 2 (: 42 · 6) (: 33)

The liver was much enlarged but the normal contour was maintained. It weighed 244 ozs. There was a large number of nodules of various sizes. The largest was 2—3 ins. in diameter, and was situated in the anterior right corner of the left lobe. The nodules were of various consistency: the larger soft and fluctuating, the smaller solid. The intervening tissue was yellowish in colour. The section shows that almost the entire organ is replaced by nodular masses of new growth. They are all well defined by a capsule of thin, laminated, fibrous tissue. The smaller ones are white, and show a few specks of hæmorrhage. The intermediate in size are soft and gelatinous, with irregular hæmorrhages. Some of the larger ones show an irregular cavity containing mucous fluid. The walls of these cavities have a ragged appearance, being composed of a layer of degenerating new growth inside the capsule, about $\frac{1}{4}$ inch thick. Some nodules are composed of jelly-like material in which there are patches of hæmorrhage, and the small branching blood-vessels are conspicuous by their white opaque walls.

Microscopically the tumour showed spindle cells and mucoid degeneration. There was a large secondary growth on the omentum, but none elsewhere. There was ascites, but no jaundice. There was œdema of both legs.

The heart showed brown atrophy. The patient had pain in the abdomen and constipation 3 months before admission. Since admission uniform increase of body-weight occurred. He was in hospital 4 months and was occasionally tapped. The cause of death was exhaustion.

The patient was 61 years of age.

M.N. 2875. D.B. 4181. P.M.M. 517. Dec. 23, 1903. Dr. Wilkinson.

LIVER: Primary Carcinoma. 36 : 66 · 4

The liver was enlarged as a whole, and weighed 76 ozs. The surface was paler than normal and was slightly roughened by a thin, fibrinous deposit, most marked on the upper surface. Numerous small, white, firm, slightly raised nodules were found scattered through both lobes, but on the under surface of the inner half of the left lobe is a large, firm, yellowish-white, nodular mass, with well-defined outline. On section this large mass is seen extending deeply into the substance of the liver. It is yellowish-white, and of the same colour and consistency throughout, except for a few small patches of softening in the centre. The rest of the liver is pale and friable, and shows small, scattered nodules. The gall bladder and large bile ducts were normal.

Microscopic examination showed the tumour to be a columnar-celled carcinoma, probably originating in the intra-hepatic bile ducts. There was a moderate amount of fibrous stroma. There was secondary extension to the peritoneum, diaphragm and omentum, and to the retro-peritoneal, but not to the mesenteric, glands. The glands at the root of the neck, the pleura, and the substance of the lung were involved. There were no other extensions found.

The patient was a male, aged 45, who came complaining of swelling of the abdomen 3 weeks before death. (See omentum M.N. 2876—38·1 : 66·4.)

M.N. 2881. D.B. 4206. P.M.M. 561. March 29, 1904. Dr. Judson Bury.

LIVER: Primary Carcinoma. 36 : 66 · 3

The specimen shows a vertical section of the liver in the line of the gall-bladder. The liver was much enlarged, its lower border reaching 4 inches below the right costal margin. It weighed 146 oz. The general contour is normal. The surface shows an innumerable host of flat white masses, circular

in outline. There is very slight projection, and the outer surface is only slightly umbilicated. On the cut surface the nodules are seen to be scattered throughout the whole substance of the liver. They are of uniform consistence, showing little softening.

Microscopical examination shows that the nodules consist of more or less well-defined alveoli made up of large cells. There are few blood-vessels and a small amount of round-celled infiltration. The liver cells are much distorted, and the line of the invasion of the growth is irregular.

The patient, a male, aged 48, suffered from troublesome cough, rapid emaciation, œdema of back and legs, pain over the enlarged liver, and exhaustion, from which he died. There were numerous enlarged lymphatic glands in the abdomen.

M.N. 2937. D.B. 4305. P.M.M. 685. Jan. 31, 1905. Dr. Wilkinson.

LIVER: Carcinoma. 36 : 66 · 3
36 : 53

The organ is of about normal size, and weighed 63 oz., but there is marked diminution of the left lobe. The surface is studded throughout with nodules of yellowish-brown colour; the largest lies at the back of the right lobe. The capsule is slightly opaque. The liver feels very firm, cuts toughly, and the cut surface is dry and the seat of innumerable yellow and yellowish-brown patches, of variable size, separated by strands of pinkish-grey fibrous tissue. The larger nodules are of soft and even pulpy consistence in their centres. The gall-bladder was slightly distended, but nothing abnormal was seen in this or the other bile channels. The organ is the seat of a combination of cirrhosis and adeno-carcinoma. The carcinoma nodules are yellowish-green, while the liver tissue has a somewhat brick-red colour, and on the cut surface is seen to be divided up into islands separated by strands of fibrous tissue. The nodules seen on the surface are due, in the main, to the cirrhosis, but the larger ones are due to the carcinomatous growth. In this form of carcinoma the nodules of new growth closely resemble, even in their microscopic characters, normal liver acini.

M.N. 2955. D.B. 4254. P.M.M. 653. Nov. 4, 1904. Dr. Graham Steell.

LIVER: Carcinoma (Secondary). 36 : 66 · 4

The liver is very much enlarged throughout, both lobes being affected to an equal extent. The weight is 154 oz. The contour is roughly normal. The surface is studded with innumerable cream-coloured, well-defined nodules of circular outline. Many have well-marked umbilication on the surface. On section they are found to replace the liver to a very great extent. The larger ones reach the size of an orange, and show in their centres evidence of softening, and in a few places minute hæmorrhages. The liver tissue is mottled, yellow and brown, is friable, and bears evidence of fatty change, and of icteric discoloration. The bile channels are normal. The primary growth was in the stomach.

The patient was a male, aged 62. (See stomach M.N. 3293—34 : 66·4.)

M.N. 3264. D.B. 3554. P.M.M. 1896, No. 199. Oct. 17, 1897.
Dr. Graham Steell.

GALL BLADDER: Carcinoma. 36 · 1 : 66 · 3

On examining the inner surface of the dilated gall-bladder the wall is seen to be thickened by a cancerous growth surrounding and including the opening of the cystic duct. At the autopsy the dilated gall-bladder was found as a pear-shaped bag occupying the greater part of the right hypochondrium. It contained much mucus and a large number of calculi. The contents of the gall-bladder were slightly bile-stained. The common bile duct and the hepatic ducts were much dilated, and showed irregularities suggesting the lodgement of gall-stones.

There was intense jaundice and emaciation. The jaundice had lasted 2 months. Shooting pains were felt in the lower part of the abdomen. The patient was a male, aged 45.

M.N. 3467. D.B. 4288. May 27, 1904. Dr. Dixon Mann.

LIVER and GALL BLADDER: Carcinoma of the Gall Bladder. Secondary Invasion of the Liver. 36·1:66·4 36:66·4

The gall-bladder is distended by a dark-coloured material, and microscopical examination showed this to consist of granular pigmented débris. The neck of the bladder is occupied by two large calculi. Beyond these is a wedge-shaped area of new growth. The neighbouring glands are enlarged and carcinomatous, and there are many secondary nodules on the outer wall of the gall-bladder, in the substance of the liver, and in the falciform ligament. The nodules vary in size, and some of them exhibit slight umbilication. At the autopsy the gastric and mesenteric glands and the lungs presented numerous secondary nodules. The stomach, intestines, pancreas and rectum were normal. The liver was bile-stained and showed venous congestion.

Microscopically the growth consisted of a columnar-celled carcinoma, associated with excessive production of mucin. The cells were very much degenerated.

The patient was a male, aged 44, with a history of chronic indigestion.

M.N. 3488. D.B. 4706. Oct. 12, 1905. Mr. Ray.

LIVER: Secondary Carcinoma. 36:66·3

The nodule of new growth shows a central area, which is opaque, and an outer zone, which is more translucent in appearance. The central portion consists of numerous small, somewhat circular areas, which are confluent. The outer and larger area, contains a few small opaque patches, and presents many minute hæmorrhagic foci. There is a certain amount of congestion and bile-staining around the growth. The liver otherwise exhibits considerable venous congestion and fatty changes.

Microscopically, the opaque portions are composed of necrosing tissue, the outer areas consist of a rich stroma of connective tissue, containing numerous islets, or rows, or acini of large cubical or short columnar cells. The nuclei are large; the protoplasm is not very granular. Numerous hæmorrhagic extravasations are visible. The liver shows extensive fatty changes. The tumour was secondary to carcinoma of the pancreas. (See pancreas M.N. 3470—37:66·3.)

M.N. 3530. D.B. 4266. P.M.M. 663. Dec. 8, 1904. Dr. Wilkinson.

LIVER: Secondary Carcinoma. 36 : 66 · 4

The liver is much enlarged. Its weight is 102 ozs. The surface glistens, but it is markedly granular throughout, the granules being paler than the intervening grooves. There are also on the surface a large number (20 to 30) of variously sized cream-coloured firm nodules having their surface flattened, or centrally depressed, or irregular. They are fairly well-defined, and on section they show large, patchy, yellow discolouration, but no signs of hæmorrhage. The specimen consists of two sections of the liver, which show that the tissue of the organ was almost completely replaced by two large masses of tumour growth. The surface of these masses shows a groundwork of semi-translucent epithelial tissue, but there are opaque areas of necrosis, fatty degenerations, discoloured areas of hæmorrhages, and areas of softening filled with fluid. Adjacent to the edge of the tumour mass the liver tissue shows bile-staining of the parenchyma. The primary growth was in the rectum.

The patient was a male, aged 64, who was admitted for fits, was unconscious, and died in 7 hours.

M.N. 3582. D.B. 4707. Oct. 18, 1905. Dr. Melland.

LIVER: Lympho-Sarcoma. 36 : 65 · 9

The specimen consists in a section of liver. The capsule shows a surface somewhat roughened and studded with nodules which vary markedly in size and colour, but none show any tendency to umbilication. On the cut surface it is seen that the whole liver substance is studded with nodules of a pale whitish or flesh colour, with slight tendency to hæmorrhage. The liver tissue is of a pale green colour and round each of the nodules there is a zone of a dark green tint. None of the nodules show any signs of softening.

On microscopic examination the nodule is found to be composed of small, round cells, which are supported by a considerable amount of matrix of fibrous tissue, whose strands can be seen penetrating the masses of round cells, and in some instances separating them into groups, giving the whole a somewhat alveolar arrangement. In the liver tissue surrounding these nodules are a large number of small, scattered groups of tumour cells. The parenchymatous cells contain a large amount of granular bile pigment. (See small intestine M.N. 3581—35·2 : 65·9, pancreas M.N. 3583—37 : 65·9, and kidney M.N. 3584—51 : 65·9.)

M.N. 3668. D.B. 4799. Jan. 20, 1906. Dr. F. C. Moore.

LIVER: Lympho-Sarcoma. 36 : 65 · 9

The liver was enormously enlarged, occupying fully three-quarters of the abdominal cavity. The specimen consists of an antero-posterior section of the organ. The liver tissue is almost entirely replaced by various-sized rounded nodules of sarcomatous growth, none of which, however, exceed the size of a walnut. As a rule they are moderately vascular, and show little evidence of degeneration or softening. The nodules project slightly on the surface, but no definite umbilication is to be noticed. The intervening liver tissue is markedly bile-stained, and the normal mottled condition is almost completely obscured.

Microscopically the growth consists of small round-celled tissue arranged in an alveolar form, the strands of cells separating these alveoli being made up of atrophied and degenerated liver cells. At the growing edge the capillaries can be made out filled with processes of the tumour growth. At the autopsy were found ascites, but no sign of new growth in the abdominal organs, apart from the liver. In the thorax there was found a large lympho-sarcoma of the bronchial glands, and this had invaded the hilum of the right lung (see M.N. 3669—43·4 : 65·9) and surrounded the lower end of the trachea.

The patient was a girl, aged 22, who was admitted to Hospital on account of abdominal enlargement. Subsequently she complained of cough, and there were bronchial breathing, rales, and dulness over the upper part of the right lung. Jaundice supervened two days before death. The whole duration of illness was about 2 months.

M.N. 3687. D.B. 4739. P.M.M. 773. Nov. 16, 1905. Dr. Harris.

LIVER: Secondary Squamous Epithelioma. 36 : 66 · 1

This single tumour was found in the right lobe of the liver. It was secondary to squamous epithelioma of the tongue. (See tongue M.N. 3686—31·2 : 66·1.)

M.N. 3739. Dec. 23, 1903. Mr. Platt.

GALL BLADDER: Carcinoma. 36·1; 66·3
36:43

A part of the wall of the gall-bladder has been removed to show the presence of a tumour which, to a large extent, fills the cavity. The surface of the tumour is papilliform, and the tissue as a whole is somewhat friable. Several gall-stones with comparatively smooth but irregular surfaces are present in the bladder.

On microscopic examination the tumour is found to be composed of large epithelial cells massed together in alveolar areas. Some of the cells show commencing colloid degeneration. The matrix of the tumour is a very loose connective-tissue of a very cellular character.

The patient was a woman, aged 39 years, who suffered from biliary colic for $4\frac{1}{2}$ months. There was also considerable emaciation. There was a recurrent growth in the liver 3 months after the operation, and patient died 9 months later.

LIVER AND GALL BLADDER: CYSTS.

M.N. 301. D.B. 1705.

LIVER (of Sheep): Distoma Hepaticum. 36 : 67 · 4 (71 · 3)

The specimen is a portion of the liver, in which there are smooth-walled cavities representing dilated bile ducts, and in one of the loculi is seen the head of one of the parasites; a number are seen free in the jar.

M.N. 304. D.B. 1707.

LIVER of an Animal showing Hydatid Cysts. 36 : 67 · 4

The specimen shows a portion of the liver in which the gland substance has been to a large extent replaced by hydatid cysts. In the cavity of one of the larger cysts the folded-up remnants of the daughter-cysts are seen, and at the bottom of the vessel there are seen a number of daughter-cysts of various sizes.

M.N. 305. D.B. 1700.

LIVER: Hydatid Cyst. 36 : 67 · 4

The specimen shows a small portion of the liver from the side of which projects a hyatid cyst about the size of an orange. The wall of the cyst can be seen to consist of several laminæ, and on the inner surface it is lined by inspissated cheesy granular material. Above the cyst is suspended a daughter-cyst crowded with grand-daughter-cysts.

M.N. 306. Mr. Ewart.

LIVER: Hydatid Cysts. 36 : 67 · 4

At the anterior and posterior borders of the liver, two large hydatid cysts have been formed. The anterior one is situated between the fundus of the gall-bladder and the liver, being attached to both structures. It had been tapped several times during life. The membrane of one of the cysts had become calcified.

M.N. 307. D.B. 1702. Dr. Dreschfeld.

LIVER: Hydatid Cyst. 36 : 67 · 4

The specimen shows the whole liver. A section across the vertex of the liver has been removed, and it opens on the left side into an enormous cyst, which has a clearly defined thin wall. The contents of the cyst have been removed, and the inner surface of the wall is smooth, except for a few tags of tissue. At the inferior border of the large cyst there is a secondary diverticulum.

M.N. 308. D.B. 1708.

LIVER; Hydatid Cyst. 36 : 67 · 4

The specimen shows the whole organ. The greater part of the substance of the right lobe is occupied by an enormous hydatid cyst, the contents of which have been removed. The internal surface shows a few ridges, but is, generally speaking, quite smooth.

M.N. 2278. Dec. 3, 1900. Mr. Stanmore Bishop.

GALL BLADDER: Cystoma. 36 · 1 : 67 · 5

The specimen consists in a cystic tumour, which was of the size of a child's head. It occupied the site of the gall-bladder, and was attached to the cystic duct, whose lumen was dilated. Examination of the tumour showed that it was the gall-bladder itself whose cavity was divided up into several loculi more or less separated from each other. Each was filled with bile-stained mucoid fluid. The walls were lined by columnar epithelium. There were no signs of infiltration of surrounding tissues.

The patient was a woman, aged 42. Slight attacks of jaundice were the only symptom that resulted from the presence of the growth. There had been no bilious attacks for 2 years. The mass had been felt for 18 months. The tumour was removed by operation, and patient recovered. (This growth is said by Mr. Mayo Robson to be unique.)

M.N. 2776. D.B. 4193. Dec. 10, 1903. Dr. Brazil.

LIVER and GALL BLADDER: Cystadenoma of Aberrant Bile Ducts. 36 : 67 · 5

The tumour projects from the inferior surface of the right lobe of the liver. It is 4 inches long and $3\frac{1}{2}$ inches thick, roughly ovoidal in shape. It is covered by a thick capsule, whose outer layer is continuous with the peritoneal covering of the liver from the right lateral border to the falciform ligament. The inner layer of the capsule passes, fused with coverings of the inferior surface, to the deepest part of the transverse fissure, and downwards to the posterior surface of the growth. The gall-bladder was displaced to the right. The relations of the structures in the transverse fissure are normal. From the right hepatic duct several small branches appear to rise and pass into the tumour-capsule. A definite opening could not be demonstrated. There is considerable perihepatitis, and the right lobe of the liver shows fatty and atrophic changes. When the tumour was opened it contained one large and numerous small cysts. The cysts were lined by cubical or columnar epithelium, whose nuclei stain deeply, and whose protoplasm is granular. The wall consists of dense fibrous tissue.

The patient was a girl, aged $6\frac{1}{2}$ years. (See *Medical Chronicle*, Jan., 1904.)

M.N. 2858. D.B. 4143. P.M.S. 343. Oct. 7, 1903. Mr. Southam.

LIVER: Hydatid Cysts. 36 : 67 · 4

The liver is much enlarged, and weighed 147 oz. The general contour showed circular prominences of all sizes up to that of a large apple. The surface is smooth and cream-coloured. The prominences occur in both lobes. On section the liver is seen to be replaced by spherical monolocular cysts. A small proportion of liver tissue remains, and is in a state of fatty infiltration. Numerous small hæmorrhages are seen in the tissue adjacent to the cysts. The cysts contain clear, limpid, colourless fluid. Each cyst was lined by an opaque, milk-white, thick membrane of soft consistence, which was detached with extreme ease. On the inner surface of these are numerous white points and groups of typical echinococcal scolices. There are no daughter cysts, and each cyst is surrounded by a well-defined grey capsule of firm fibrous tissue. There were cysts in both lungs.

The patient died of septic peritonitis. (See lung M.N. 2857—25 : 67·4.)

M.N. 2894. D.B. 2676.

LIVER: Hydatid Cysts. 36 : 67 · 4

This specimen shows a group of daughter-cysts from a case of hydatid cyst of the liver. The cysts have thin transparent walls and clear contents. In some of them an opaque area may be seen when the scolices have sprouted from the inner lining of the cyst wall.

M.N. 3097. Mr. Wright.

LIVER: Hydatid Cysts. 36 : 67 · 4

The specimen shows seven daughter cysts removed from a hydatid cyst of the liver. The cysts are milk-white in colour, and the walls are thin and semi-translucent.

The patient was a man aged 46 years, who had noticed a painless enlargement of the abdomen for 15 months. The liver was enlarged to the level of the umbilicus. The cyst was opened and drained. The contents measured 80 ozs. of fluid, and there were large numbers of daughter-cysts. Operation Jan. 8, 1902.

M.N. 3131.

LIVER; Hydatid Cyst. 36 : 67 · 4

The specimen shows a large three-cornered hydatid cyst, with a thin, well-developed wall, and a single cavity. The inner surface of the wall is thickly studded with numberless daughter cysts of varying sizes. Some of these are seen lying at the bottom of the specimen jar.

M.N. 3260. D.B. 3966. Dr. Ashe.

LIVER; Congenital Cystic Disease. 36 : 67 · 3

The liver is enlarged and shows throughout its substance a number of cysts of various sizes, the smaller of which have smooth walls. The contents of these are of a colloid nature. In the case of the larger cysts the contents have become granular and adherent to the inner lining, giving it a roughened appearance. The kidney in this case is also cystic. (See kidney M.N. 3259—51 : 67·3.)

M.N. 3380. D.B. 4377. P.M.S. 437. Apr. 13, 1905. Mr. Southam.

LIVER: Hydatid Cyst, Jaundice. 36 : 67 · 4
36 : 42 · 8

The upper surfaee is the seat of widespread, moderately firm, fibrous adhesions, uniting it to the diaphragm and abdominal parietes. The liver was slightly enlarged, and its surfaee was dark green, mottled with yellow spots. On section the green and yellow mottling was very marked. Posteriorly, at the junetion of the Spigelian lobe with the left lobe of the liver, was found a marked puckering, whieh felt very firm. Section revealed this to be due to a large globular mass, the size of a tangerine orange, well defined, and surrounded by a thin layer of grey, fibrous tissue. The eut surface was of a glaring white, with wavy septa passing throughout, and the whole had the appearanee and eonsistence of cream cheese. Here and there particles of calcareous matter were felt. The fibrous capsule had also shut off small areas of liver substanee from the main mass; but beyond these there were no signs of extension of the fibrous tissue into the substance of the liver. There was no diffuse thiekening of the eapsule of the liver. The jaundice was due to catarrhal cholangitis. The gall bladder was normal.

The patient was a male, aged 62, who died from catarrhal eholangitis eoming on after the operation for gall stones.

M.N. 3432. D.B. 1823. P.M.M. 1893, No. 7. Nov. 8, 1892. Dr. Harris.

LIVER: Hydatid Cyst. 36 : 67 · 4

In the left lobe is an old hyatid cyst with thick wall and rough pigmented inner surfaee. At the right side of the gall-bladder there is another hydatid eyst whieh eontains the folded-up gelatinous endo-cyst inside its outer fibrous eapsule. The liver is small and distorted, and was found matted together with the surrounding struetures. There is also a moderate degree of cirrhosis.

The patient had ascites and hydro-thorax, and died of asthenia.

M.N. 3591. D.B. 4681. P.M.M. 746. Aug. 28, 1905. Dr. Judson Bury.

LIVER; Bile Cyst. 36·2:67·1

Immediately beneath the capsule is a small green bile cyst, the size of a pea.

The patient was a woman, aged 27, the subject of Bright's disease. (See stomach M.N. 3592—34:55·4, large intestine M.N. 3526—35·4:54·3, and kidney M.N. 3510—51:52·2.)

M.N. 3710. D.B. 4822. P.M.S. 490. Feb. 6, 1906. Mr. Platt.

LIVER: Congenital Cystic Dilatation of Bile Ducts. 36:67·3

The organ is of normal size and shape and consistence. It weighed 53 oz. Its surface is smooth, but somewhat paler than normal. The liver is seen to be the seat of a large number of bluish translucent cysts, for the most part of the size of grape-seed; they are scattered irregularly, though some show a tendency to a grouped arrangement. They have no capsule, and contained clear fluid.

Microscopically the portal areas showed a large number of considerably dilated bile ducts lined by cubical epithelium, and lying in a fibrous matrix. Where the section passed through one of the small cysts it was found that the cavity was lined by similar epithelium, and that its lumen was filled with colloid material free from pigment.

The patient was a male, aged 38, who died from a fractured skull.

LIVER: GENERAL NUTRITIONAL DISEASES.

M.N. 3303. D.B. 4137. P.M.M. 460. Sept. 5, 1903. Dr. Dreschfeld.

LIVER: Spleno-Medullary Leucocythæmia. 36 : 81 · 4

The liver is very large and heavy, and weighs 86 oz. There is irregular diffuse thickening and white opacity of the capsule, especially on the upper and right lateral surface. On section it showed a dark and light-brown mottling, but the lobules were not so well-defined as normal.

The patient was a male, aged 52. (See spleen M.N. 3302—45 : 81·4.)

M.N. 3484. D.B. 4268. Dec. 13, 1904. Dr. Dixon Mann.

LIVER: Hodgkin's Disease. 36 : 81 · 5

The liver is somewhat pale in appearance. The capsule is smooth, and the surface even. Underneath the capsule numerous yellowish-white areas are visible; these vary in size and shape. The organ weighed 36 oz. The cut surface shows the pale colour, and the presence of the irregular-shaped white patches, which are situated chiefly in the portal areas.

Microscopically the nodules are generally situated in the peri-portal tissues, vary in size, and are composed of several types of cells. There are epithelioid cells, mononuclear cells and a few giant cells and eosinophile cells. At the periphery a few cells are present which are intensely basophile, and are probably plasma cells. The most striking type is the connective tissue cells, with their spindle-shaped or oval nuclei, both deficient in chromatin. The nodules are somewhat indefinitely bounded by the adjacent parenchyma. The larger nodules contain strands of well-developed fibrous tissue. The lobules of the liver exhibit marked congestion, but the hepatic cells are practically normal. There is no caseation.

The patient was a male, aged 16. (See mediastinal glands M.N. 3482—43·4 : 81·5, retro-peritoneal glands M.N. 3485—43·6 : 81·5, spleen M.N. 3483—45 : 81·5.)

M.N. 3718. D.B. 4847. Feb. 19, 1906. Dr. Heywood.

LIVER: Hodgkin's Disease. 36 : 81 · 5

The liver was much enlarged, and the two sections show on the cut surface irregular white lines marking out the portal areas. In the parenchyma of the organ there is irregular white mottling, and in one or two areas the white tissue predominates, so as to give the appearance of a nodule.

Microscopic examination shows that the white areas consist of fibrous tissue in which occur lymphocytes and endothelial cells in large numbers. In certain parts of these formations necrosis has taken place. The liver cells are free from degeneration.

The patient was a boy, aged $5\frac{1}{2}$, who suffered from Hodgkin's disease. There was profound anæmia and emaciation. The cervical lymph glands were markedly enlarged, while the axillary and inguinal were not much involved. There was also marked enlargement of the abdominal glands. To a less extent the mediastinal glands were affected. The bone-marrow in the shaft of the femur was red. The spleen showed marked enlargement. (See spleen M.N. 3719 —45 : 81·5.)

PANCREAS: INFLAMMATORY LESIONS.

M.N. 3291. D.B. 4226. P.M.M. 635. Sept. 24, 1904. Dr. Dreschfeld.

PANCREAS: Acute Hæmorrhagic Pancreatitis. 37 : 54 · 6
37 : 55 · 4
82 · 2 : 44

The speeimen eonsists of the pancreas and duodenum. The panereas is placed vertically with its head down, and a longitudinal incision has been made through the body of the organ. The pancreas is very much enlarged, and it bulged into the posterior wall of the lesser peritoneal cavity to a very marked extent. In size it is slightly less than a coeoanut, and it weighed (along with the duodenum) 17 ozs. The peritoneum over it is discoloured by diffuse hæmorrhagie effusion, and the subserous tissue, which was the seat of a large amount of fat, was studded with a very large number of opaque, pale yellow, cireular patches of fat necrosis, most of them $\frac{1}{4}$ inch across, well defined, not detected by palpation, and apparently situated just beneath the endothelium, though a few lie more deeply. The pancreas had the appearance of very firm blood clot, of a very dark purple colour. Its contour was an elongated oval, and the distinction between head and body was lost. The region of the head was, however, less enlarged than the rest of the pancreas, and showed the hæmorrhagic changes less. The natural lobulation of the organ was completely lost. The tail was rounded, and as blunt as the normal head of the panereas. The peri-pancreatic tissue was infiltrated by hæmorrhage, and in places where the opaque dises had eoalesced they gave the tissues the appearance of mortar. On section the bulk of the pancreas looked like deep purple blood clot, but was of very firm consistence. Here and there (at centre and periphery) were a few isolated groups of lobules like those of a normal pancreas, but slightly enlarged and of a mueh darker colour than normal. These less-affected areas are fairly well defined. The duodenum is normal.

Microscopic section showed almost complete disorganisation of the pancreas —the finer structure was hardly recognizable, being obscured by extravasated blood.

The patient was a female, aged 59. She was admitted with acute gastro-intestinal symptoms and died the following day. (See omentum M.N. 3292—38·1 (82·2) : 44.

M.N. 3351. D.B. 4374. P.M.S. 441. Apr. 26, 1905. Mr. Southam.

PANCREAS and DUODENUM; Acute Hæmorrhagic Pancreatitis. 37 : 54 · 6
37 : 55 · 4
82 · 2 : 44

The entire pancreas is much enlarged, and more cylindrical than normal. The surface is slightly irregular and dark in colour, being mostly brownish-black, mottled with a deep brick-red. The whole organ is firm, and of the same consistence throughout. On section the interior shows a very well-marked mottling (brownish-black and deep red), and no trace of anything resembling pancreatic tissue was to be seen in the bulk of the organ. The cut surface was dry. In the fatty tissue surrounding the pancreas were numerous small, round, oval, disc-like areas of an opaque yellow colour (fat necrosis), covered by the endothelium of the peritoneum. They are mostly arranged in groups, and were very richly distributed about the region of the tail of the pancreas, where on section they resembled the colour and consistence of cream cheese. Some are seen on the cut surface, affecting the interlobular fat. They were also numerous in the mesentery of the small intestine and in the omentum. A few were found on the anterior and posterior abdominal walls. In the omentum (where fat is in fairly large amount) were seen a number of small, bright-red or purple, bleb-like, hæmorrhagic nodules—these were more numerous in the omentum than the yellow discs,—but they were not found elsewhere in the abdomen. (See omentum M.N. 3352—38·1 (82·2) : 44.) The peritoneum contained half-a-pint of slightly turbid, markedly blood-stained, thin, serous fluid. No signs of inflammation of the serous membrane were found.

The patient was a male, aged 50.

M.N. 3362. D.B. 4265. P.M.M. 662B. Dec. 6, 1904. Dr. WILKINSON.

PANCREAS: Inflammation of the Head, Obstruction of the Common Bile Duct. 37 : 53 · 2
36 · 2 : 26
36 · 2 : 27

The organ weighs 5 ozs., and the head is enlarged to the size of a large plum. Its contour is regular and of globular character. The area of enlargement is of very firm consistence. The body and tail are of normal size and colour, and felt very firm. On section the head is found to be the seat of a mass of dense, slightly yellowish, inflammatory thickening of very homogeneous appearances. Its boundaries, where it encroaches on the more normal pancreatic tissue, are ill-defined. The common bile duct becomes lost in it, and cannot be traced through the area. The peri-pancreatic fat looks more opaque than normal.

Microscopic examination shows a marked thickening of the interlobular septa. This thickening is partly fibrous and partly cellular. A large number of the cells are polymorphonuclear leucocytes.

The patient was a male, aged 52.

PANCREAS: MALIGNANT TUMOURS.

M.N. 3285. D.B. 4222. Dr. C. H. Melland.

PANCREAS and LYMPH GLANDS: Secondary Melanotic Sarcoma. 37 : 65 · 5
43 · 6 : 65 · 5

The pancreas is the seat of several nodules of melanotic tumours which had formed as metastatic growths in the substance of the gland. They are very black in colour, and are scattered indiscriminately. The lymph gland which is seen on the upper border of the pancreas has been also invaded, but is not so darkly pigmented as the formations in the pancreas. The primary growth was in the eye, and there were numerous nodules in various other viscera.

Microscopic section of one of the nodules shows a small amount of melanin pigment, the tissue being composed almost entirely of fusiform cells with oval nuclei.

M.N. 3357. D.B. 4201. P.M.M. 555. March 12, 1904. Dr. Dreschfeld.

PANCREAS: Carcinoma of the Head. 37 : 66 · 3

The pancreas shows a regular, slightly nodular enlargement of its head. It is firm, and on section reveals a large amount of fibrous tissue separating islands of new growth, which have a cream-yellow colour. The enlarged head extends into the mesentery of the small intestine. The whole of the pancreas is surrounded by dense indurated tissue. The bile duct was distended, and the patient died with intense jaundice.

Histological examination shows the presence of a scirrhus carcinoma.

The patient, a male, aged 47, had a history of 3 months' illness; jaundice for 1 month. He died suddenly.

M.N. 3470. D.B. 4706. Oct. 12, 1905. Mr. J. H. Ray.

PANCREAS, COLON, STOMACH, SPLEEN, KIDNEY: Carcinoma of the Tail of the Pancreas. 37 : 66 · 3, 35 · 4 : 26

At the splenic flexure the lumen of the colon is diminished in size. The mucosa is, however, intact and apparently normal. The submucosa and muscular coats are replaced by a dense, light-coloured growth, which pressed upon the colon and caused the obstruction. This growth arises from the tail of the pancreas. It has extended laterally to the hilum of the kidney and spleen, embedding both the renal and splenic vessels. The whole of these organs are matted together by the carcinoma. The capsule of the spleen is slightly thickened. On section the pancreatic growth presents a homogeneous cellular rather than a glandular appearance, and contains areas of hæmorrhage.

Microscopically it consists of glandular cells arranged in the form of acini, lying in a rich stroma of fibrous tissue. The acini are irregular in size, and many of them contain broken-down material. The cells are large, with round or oval nuclei, and do not display the outer or inner zones of normal pancreatic cells. Many of them contain large vacuoles and other signs of degenerative changes. In others mitotic figures are present. The adrenal is seen buried in the primary tumour, above the hilum of the kidney, and may be distinguished by its colour and shape. Secondary nodules were present in the liver, and the growth had extended to the retro-peritoneal tissues, where it covered the vertebræ and surrounded the aorta for about two inches.

The patient, a woman, aged 62, was admitted to the Hospital for intestinal obstruction. (See liver M.N. 3488—36 : 66·3.)

M.N. 3583. D.B. 4707. Oct. 18, 1905. Dr. Melland.

PANCREAS: Lympho-Sarcoma. 37 : 65 · 9

The specimen consists in the greater part of the pancreas. The outer surface of the gland is roughly nodular from the presence of masses of tumour growth. On the cut surface it is seen that the definition of the gland structure has been completely lost, and the tissue has an opaque, cellular, friable appearance, and shows a few small hæmorrhages. In the fat around the gland are observed a few small opaque patches of necrosis.

The patient was a man, aged 49, who died after about 2 months' illness.

He suffered from ascites and abdominal pain. Nodules could be felt in the epigastrium, and there were also nodules on each side of the neck. The blood showed a leucocytosis (chiefly of polymorphonuclear leucocytes). The patient died from exhaustion. At the post-mortem examination growths were discovered in the following sites:—Bronchial glands, but not in the lungs; lymph glands round the aorta in the abdomen and round the pancreas; glands in the pelvis; nodules were found in large number in the liver, and a few nodules in the kidneys. (See liver M.N. 3582—36 : 65·9, small intestine M.N. 3581—35·2 : 65·9, and kidney M.N. 3584—51 : 65·9.)

M.N. 3732. D.B. 4874. Dr. Reynolds.

PANCREAS: Melanotic Sarcoma. 37 : 65 · 5

The pancreas has been divided longitudinally, and on the cut surface it is seen to be studded with innumerable small pigmented nodules of melanotic sarcoma. (See heart from the same case M.N. 3731—12 : 65·5.)

PANCREAS: CYSTS.

M.N. 3109. Mr. Collier.

PANCREATIC CYST. 37:67

The specimen shows a thin-walled and apparently slightly loculated cyst, the contents of which are clear fluid. The outer surface of the cyst after enucleation is comparatively smooth.

The patient was a woman, aged 38 years. For three years there had been pain and swelling of the abdomen with alternating attacks of diarrhœa and constipation. No steatorrhœa. No jaundice. A rounded tumour could be felt in the abdomen just above and to the left of the umbilicus. The tumour was behind the transverse colon, shown by injecting air per rectum. Laparotomy was performed, and the cyst was enucleated with the finger from the tail of the pancreas. Recovery was complete.

PERITONEUM AND MESENTERY: MECHANICAL LESIONS.

M.N. 1918.

INGUINAL HERNIA

38 (05·6) : 23·2
35·2 : 23·2

This specimen consists in the dissection made to expose the structures involved in an inguinal hernia of the small intestine. A loop of small intestine is seen projecting into the inguinal ring, and an incision has been made anteriorly to show the loop of bowel which has passed into the upper part of the patent inguinal canal. The canal is patent below the site of the hernia.

M.N. 1919.

INGUINAL HERNIA.

38 (05·6) : 23·2
35·2 : 23·2

This specimen shows a group of coils of small intestine lying in the dilated mouth of the inguinal canal. The dissection exposes also the spermatic cord and testicle, from the surface of which the greater part of the tunica vaginalis has been removed.

M.N. 1921. D.B. 1679.

INGUINAL HERNIA.

38 : 23·2

The specimen shows the anterior abdominal wall, including the abdominal rings and tissues covering the spermatic cords and testis; there is also a short piece of large intestine. On the left side a hernial process of peritoneum has passed through the inguinal rings, and made its way along the spermatic cord into the tissues of the scrotum, and forms a large swelling extending down to within two inches of the testis. At the abdominal orifice, the appendices epiploicæ are seen entering the canal; the bowel has apparently not extended into the sac. The wall of the sac shows no evidence of peritoneal thickening. On the right side a similar opening is found at the internal abdominal ring, and there is a slight thickening visible along the upper third of the spermatic cord; this protrusion of peritoneum does not contain any bowel or omentum.

M.N. 1922.

INGUINAL HERNIA. 38·1:23·2

The specimen shows part of the abdominal wall, including the inguinal canal, together with the cord and testicle of the right side. The preparation exhibits the sac of an oblique hernia, the contents of which appear to be mainly omental. Adhesions have taken place at the lower end of the sac. The testicle is seen below the sac, and the cord may be traced passing upward along the posterior aspect of the hernia.

M.N. 1923.

SAC OF FEMORAL HERNIA 38:23·2

The specimen shows a portion of the abdominal wall including Poupart's ligament of the left side. It exhibits also the femoral vein and artery, and the anterior crural nerve. Running down along the side of the vein is the pouch of the peritoneum from a femoral hernia.

M.N. 1925. Mr. Wright.

HERNIAL SAC. 38:23·2

The specimen shows the thickened walls of a hernial sac of the peritoneal serous membrane.

M.N. 1926.

INGUINAL HERNIA. 38(05·6):23·2

This specimen consists of a dissection to expose the site of an inguinal hernia. The portion of the anterior abdominal wall shows a somewhat roughened peritoneal surface, and in the centre there is a large irregular opening leading into two cavities. The lower of the two is the prolongation of peritoneum down the cord, and in this a piece of metal rod has been placed. Above this, and opening about the abdominal ring, a much larger cavity is present. The greater part of the wall is comparatively smooth, but portions of it, especially in the neighbourhood of the ring, are very ragged. This latter cavity has thick walls, and is to a certain extent loculated.

M.N. 1992. D.B. 1680.

INGUINAL HERNIA OF THE OMENTUM. 38·1:23·2

This specimen is a dissection of the parts involved in an inguinal hernia of the omentum. The abdominal wall surrounding the inguinal ring is seen with a wide funnel-shaped opening of a patent inguinal canal. Into this opening a strand of omentum passes. An interior incision has been made to show the lower end of the hernial sac in the cord. Below the sac the testis is exposed in the tunica vaginalis.

M.N. 1993.

OMENTUM; Hernia. 38·1·23·2

The specimen shows a portion of the anterior abdominal wall in the middle line in its whole thickness. In the centre of the peritoneal aspect of the wall there is a rounded opening about half an inch in diameter, leading into a cavity the expansion of which has caused a rounded swelling immediately under the skin. Into this cavity there has passed a process of omentum, and this has been left *in situ*.

M.N. 2752. D.B. 3631. Nov. 23, 1897. Prof. Jones.

UMBILICAL HERNIA. 38·1 (05·2):23.2

The specimen shows the rounded protrusion of the abdominal wall which forms the sac of an umbilical hernia. The superficial skin is atrophied here and there, but there is no ulceration. The contents of the sac were the great omentum, part of which may still be seen.

M.N. 2900. D.B. 3624. Dr. W. P. Stocks.

HERNIAL SAC. 38:23·2

The specimen shows the sac of an inguinal hernia. From a girl aged 6.

M.N. 3033. Mr. Wright.

OMENTAL HERNIA. 38·1:23·2

The specimen shows a mass of omentum, of normal appearance, removed from a hernial sac.

The patient was a man aged 29 years, who suffered from an irreducible congenital inguinal hernia. Radical cure was performed May 7, 1903.

M.N. 3103. Mr. Wright.

IRREDUCIBLE OMENTAL INGUINAL HERNIA. 38·1:23·2

The specimen shows a portion of omentum removed during an operation for irreducible hernia. The fat is very irregularly distributed. There are no signs of chronic inflammation.

The patient was a man aged 21 years, who had suffered from a congenital inguinal hernia, as long as he could remember. The hernia had been irreducible for one month. Operation Feb. 27, 1903.

M.N. 3214. Mr. Wright.

OMENTUM: Hernia. 38·1:23·2

The large hernial sac is completely filled with a mass of adherent omentum. In one area the omentum is discoloured from old hæmorrhage.

The patient was a man aged 50 years. The hernia had been present for 20 years, and for the last 5 weeks had been irreducible. The sac with the contained omentum was removed and radical cure of the hernia was performed Sept. 22, 1904.

M.N. 3215. Mr. Wright.

HERNIAL SAC. 38·1:(05·6):23·2

The specimen consists of a very large hernial sac. The sac is somewhat constricted in the centre, and is a good deal discoloured from hæmorrhage.

The patient was a man aged 40 years. He had been ruptured for 15 years, and for the last 5 years the rupture had been irreducible. No truss had been worn. For the last year he had suffered considerably from indigestion and difficulty with the bowels. The sac was removed with its contents of adherent omentum from the left inguinal region, the omentum having previously been ligatured. Recovery was uneventful.

M.N. 3330. D.B. 3315. Dec. 30, 1895.

MESENTERY: Laceration. 38 : 21

This specimen shows portions of the upper end of the small intestine with the mesentery from a patient who was found in an unconscious condition after assault.

M.N. 3706. D.B. 4807. P.M.S. 485. Jan. 25, 1906. Mr. Southam.

MESENTERY: Laceration. 38 : 21
35 · 2 : 44 · 5

In the mesentery of the small intestine, 2 feet above the ileocæcal valve, were found two wide, oval lacerations of recent date, and with shaggy, blood-stained margins. These lacerations are separated by about 4 inches of bowel. The larger one is the lower, and will admit four finger tips easily; the one that lay higher up in the mesentery is about half that size. The small intestine, in connection with the affected portion of mesentery, is of a deep purple colour, due to commencing gangrene, but the limits of the necrosed area are well-defined. Apparently the bowel has escaped direct injury. At the autopsy was found general acute peritonitis. There were also other signs of injury, viz., dislocation of the right sacroiliac joint, fracture of the ilium, with laceration of the peritoneum in this region. The patient was a male aged 36, who died within 24 hours of the injury to the abdomen.

M.N. 3764. D.B. 4870. March 2, 1906. Mr. Thorburn.

HERNIAL SAC containing Adherent Omentum. 38 · 1 : 23 · 2

The sac of the hernia is of an elongated, cylindrical shape, and is thin-walled. The adherent omentum is unaltered.

PERITONEUM AND OMENTUM: RETROGRESSIVE DISORDERS.

M.N. 3292. D.B. 4227. P.M.M. 635. Sept. 24, 1904. Dr. Dreschfeld.

GREAT OMENTUM: Fat Necrosis. 38·1 (82·2) : 44

This specimen was taken from a case of acute hæmorrhagic pancreatitis. The fatty tissue is studded with an enormous number of small rounded opaque patches of necrosis situated immediately under the serous covering. They are irregularly distributed, and the specimen represents the condition prevailing in the fatty tissue throughout the abdominal cavity and also in the sub-epicardial fat. (See pancreas M.N. 3291—37 : 54·6.)

M.N. 3352. D.B. 4374. P.M.S. 441. April 26, 1905. Mr. Southam.

GREAT OMENTUM: Fat Necrosis. 38·1 (82·2) : 44

The omentum shows a large number of small oval disc-like areas of an opaque yellow colour beneath the endothelium of the peritoneum; also a number of small hæmorrhages and blackish areas where the blood has become discoloured. (For details of the case see pancreas M.N. 3351—37 : 54·6.)

M.N. 3671. D.B. 4734. P.M.S. 473. Nov. 10, 1905. Mr. Wright.

OMENTUM: Fatty Infiltration 38·1 : 42·3

The whole omentum is the seat of a very large overgrowth of fat. (See heart M.N. 3670—12 : 42·3.)

M.N. 3733. D.B. 4335. Feb. 27, 1905.

Dr. Gillespie,
Wadsley Asylum, Sheffield.

LARGE INTESTINE: Encapsulation of Gall Stones. 38 (35 · 4) : 43

On the serous aspect of the intestine several groups of smooth gall-stones may be seen attached to the bowel by delicate strands of fibrous tissue. These calculi had at an earlier period escaped from a ruptured gall-bladder, and were distributed generally through the peritoneal cavity.

The patient was an epileptic maniac. He was jaundiced in 1898, and suffered pain over the liver, but otherwise there was no symptom of gall-stone. At the autopsy the gall-bladder was found ruptured and unduly adherent to the liver. The ducts were pervious. The rupture was evidently of old-standing.

PERITONEUM: INFLAMMATION.

M.N. 1995. D.B. 905. P.M.M. 1889, No. 77. Oct. 16, 1889.

SMALL INTESTINE and MESENTERY: Chronic Peritonitis. 38 : 55 · 1

This specimen shows a considerable portion of the small intestine, with its mesentery attached. The mesentery is very much thickened by exudation, and the lymphatic glands are moderately swollen, but not caseous. Over the serous surface of the mesentery and intestines there are deposits of fibrinous lymph. The peritoneal cavity contained a large amount of serous fluid, in which were soft, fibrinous clots. The intestines were matted together by thick layers of lymph, some of it hard and firm. There was no pus in any part of the abdomen. The uterus was much bound down by lymph. The liver was fatty and congested, and the capsule was thick and somewhat rough. The cause of the chronic peritonitis was not discovered.

The patient was a much emaciated, elderly female.

M.N. 2779. D.B. 3534. P.M.M. 1896, p. 341. Feb. 19, 1897. Dr. Harris.

INTESTINE and MESENTERY: Chronic Peritonitis. 38 : 55 · 1
38 : 55 · 7

The serous membrane covering the mesentery and intestine shows a general, white, opaque thickening, and the two arms of the loop of intestine have become adherent to each other for about 3 inches. The case was one of heart disease, showing dilatation with sclerosis of the mitral and aortic segments. There was a large amount of fluid in the peritoneal cavity, and the liver was covered by a markedly thickened capsule.

From a boy aged 13 years.

M.N. 3301. D.B. 4256. P.M.M. 657. Nov. 24, 1904. Dr. Reynolds.

INTESTINE: Chronic Peritonitis. 38 : 55 · 1

The mucous membrane is normal. The serous coat shows diffuse thickening and opacity, and is of a dark grey colour; and the surface has a somewhat convoluted appearance, and these changes are even more distinct in other parts of the peritoneum. The coils of bowel were markedly contracted in con-

sequence. The specimen is from a case of general chronic peritonitis with marked contraction of the stomach, and also of the omentum, giving these organs a tough leathery feeling. There were a few apical adhesions over the upper part of the left lung, but apart from this there were no signs of thickening of the pleuræ and pericardium. The capsule of the spleen was much thickened, and that of the liver only to a slight extent. The cavity of the peritoneum contained about 13 pints of clear, brownish, serous fluid. The patient's abdomen had been tapped 3 days before death and 230 ounces of fluid had been removed. A similar quantity had been removed 12 days before. The patient (aged 48) had suffered from diarrhœa, vomiting, abdominal discomfort and pains for 3 months before death.

The microscopic structure is that of a large, cellular overgrowth of fibrous tissue. There are no signs of tuberculosis.

M.N. 3317. D.B. 4228. P.M.M. 629. Sept. 19, 1904. Dr. Harris.

PERITONEAL COVERING OF LIVER AND SPLEEN: Chronic Fibrous Thickening. 38 (36) : 55 · 1
38 (45) : 55 · 1

The peritoneum was distended with a large amount (9 pints) of very pale, and very slightly turbid, yellow, serous fluid. There was evidence of thickening and opacity throughout its entire extent, but over the liver and spleen it was most marked; here the serous coat is fully $\frac{1}{4}$ inch thick in places, and is white, and very firm and fibrous, and here also the distribution of the thickening is uniform except for a large number of small, saucer-like depressions, averaging $\frac{1}{4}$ inch across. Similar conditions, but less marked, were found over the upper half of the abdominal parietes; here the depressions were larger and shallower. A still less degree of thickening occurred over the transverse colon. Between the liver, transverse colon, and the parietes, were very long and fibrous adhesions, some of which were fully $\frac{1}{4}$ inch in diameter. A few small, opaque, superficial patches of thickening were found on the mesentery of the small intestine, but the structure was apparently not shrunken nor distorted. The serous coat of the small intestine showed a very slight milky opacity throughout, but there were no adhesions; the small intestine showed less marked peritoneal affection than any of the other abdominal viscera. The serous coat of the transverse colon was very much thickened, and a similar change was found in the splenic flexure, descending colon, sigmoid, and upper part of the rectum.,It was also found on the hepatic flexure

and adjacent part of the ascending colon. The liver was of normal size and shape, and of very firm consistence. On section the parenchyma appears pale yellowish brown, and numerous grey strands are found irregularly scattered near the surface. The specimen shows a portion of the right lobe with an exceedingly thick, dense, white pitted capsule (sugar-icing liver)—the emphysematous condition is a post-mortem change. The spleen was slightly enlarged, moderately firm, dry, and dark purple on section, but no visible strands of fibrous tissue were seen in the substance of the organ. A portion of the spleen is shown where the capsular thickening is very marked.

M.N. 3385. D.B. 3626. Dec. 8, 1897. Mr. Montgomery.

PERITONEUM: False Ligament. 38 : 55 · 1

The specimen shows in the region of the ileo-colon a short, stout band of fibrous tissue, passing between two neighbouring loops of intestine.

PERITONEUM: SPECIFIC INFLAMMATIONS.

M.N. 3281. D.B. 127. Dr. Ross.

PERITONEUM: Tuberculous Peritonitis. 38 : 56 · 2

This specimen shows a section of the liver with coils of intestine matted together by tuberculous adhesions. Large numbers of miliary caseous foci can be seen in the strands of adhesive tissue.

The patient was a child.

M.N. 3338. D.B. 1854.

OMENTUM: Chronic Tuberculosis. 38 · 1 : 56 · 1

The specimen shows the stomach and omentum enclosing the transverse colon. The omentum has been converted into a flat discoid layer of fibrous tissue, which encloses or "jackets" the transverse colon. A piece of the anterior layer of the disc has been removed to show the intestine lying in its substance. The serous surface of the small intestine was thickened with flakes of tuberculous deposit, and the adjacent loops were adherent to each other by easily-torn adhesions.

Microscopical examination of the thickened and contracted omentum showed a typical tuberculous structure.

PERITONEAL COAT OF SMALL INTESTINE: Miliary Tuberculosis. 38 : 56 · 2

M.N. 3355. D.B. 4565. P.M.S. 448. May 25, 1905. Mr. Collier.

The coats of the small intestine are somewhat congested, and on the peritoneal surface may be seen a widely scattered series of minute grey miliary tubercles. There are none on the mucous coat.

The specimen is from a man, aged 60. This condition was due to infection from a primary solitary tubercle in the spleen. (See spleen M.N. 3348—45 : 56·1, and liver M.N. 3374—36 : 34·1.)

M.N. 3625. D.B. 4632. P.M.M. 724. June 29, 1905. Dr. Judson Bury.

OMENTUM: Tuberculosis in a Case of Leukæmia. 38·1 : 56·2

The specimen consists of the pyloric half of the stomach with the corresponding half of the great omentum. The entire peritoneum was studded over with innumerable points of grey miliary tubercles. Some of the larger ones were $\frac{1}{8}$ inch across, and could be felt as firm nodules. They were most thickly distributed over the omentum (as seen in the specimen), the diaphragm, and the lumbar, iliac and pelvic regions; but no part was free. Where they are most abundant they have occasionally become confluent. Over the stomach and bowels they were more sparsely scattered. The omentum feels firmer than normal in consequence of their presence. There was no sign of acute congestion or inflammation. The peritoneal cavity contained about 10 pints of pale, clear, serous effusion.

Microscopic examination of the omental tissue shows the presence of foci in large numbers, of small size and containing tubercle bacilli, but not showing any typical tuberculous structure. (See lung M.N. 3624—25 : 56·1, and spleen M.N. 3623—45 : 81·4.)

M.N. 3734. D.B. 4294. Jan. 17, 1905. Dr. Dixon Mann.

LIVER: Tuberculous Peritonitis. 38 (36) : 56·2
38 (36) : 55·7

The surface of the liver is covered by a layer of very fine fibrous adhesions, and in the capsule of the liver may be seen a considerable number of miliary tubercles, some of which are caseating. The substance of the liver is free from tuberculosis.

PERITONEUM: BENIGN TUMOURS.

M.N. 1998A. Mr. TURNER.

PERITONEUM: Fibroma. 38 : 63 · 2 (42 · 9)
38 : 28 · 1

This specimen consists of a centre of necrotic calcareous material, which is surrounded by a layer of dense cicatricial tissue, about $\frac{1}{2}$ inch thick. The outer surface is covered by endothelium. The structure is a fibroma with a calcified centre, from the peritoneal cavity, where it had become a loose body.

M.N. 3226. Mr. J. W. SMITH.

OMENTUM: Myxoma 38 · 1 : 63 · 5

The specimen consists of a portion of a tumour removed from the omentum. At the lower part of the specimen a piece of the omentum, from which the growth was springing, is seen. The tumour forms a sausage-shaped mass with a comparatively smooth reticulated surface. The surface of section shows that the tumour consists of a clear myxomatous tissue permeated with delicate strands of connective-tissue and enclosing one or two minute lobules of fat.

Microscopic section shows a tumour in which the tissue is composed of rounded masses of a myxomatous structure in the meshes of a fibrous matrix. There is a considerable accumulation of round cells in the neighbourhood of the blood-vessels.

The patient was a man, aged 51 years, who had had a right inguinal hernia for 18 years. Eleven weeks before operation the hernia became larger, painful and irreducible. On admission a large irreducible scrotal hernia was present on the right side, and a hard mass could be felt in the sac. Operation was performed July 20, 1904, and the mass was removed from the omentum

M.N. 3455.

MESENTERY: Lymphangioma. 38:64·4

The specimen consists in a portion of bowel, in the mesentery of which is half of a large tumour. The lumen of the bowel has not been markedly obstructed, nor has the muscular wall been invaded. The outer surface of the tumour is formed by the serous coat of the mesentery. The substance of the tumour consists of a tissue showing innumerable small cysts, some of which still retain their somewhat colloid contents. One or two points of hæmorrhage can be seen.

Microscopically the tumour shows a large number of spaces lined by a layer of flat cells resembling endothelium, and separated from each other by thin fibrous septa. The contents of the spaces have a colloid appearance, but here and there they show a number of lymphocytes scattered in their substance. There are also collections of lymphocytes in the septa. The tumour is a lymphangeioma.

PERITONEUM: MALIGNANT TUMOURS.

M.N. 1837. Mr. Jordan.

PERITONEUM: Colloid Carcinoma. 38 : 66 · 3 (42 · 7)

The specimen shows a portion of the peritoneal wall of the abdomen, in which has grown a thick layer of spongy processes of colloid cancer, of a grey, gelatinous appearance, and showing innumerable minute cysts in their substance. In the upper part of the specimen a fragment of the spleen, and at the lower part a fragment of the liver, is embedded in the tumour.

Microscopic examination shows that the structure is composed of a very fine meshwork of fibrous tissue, in the spaces of which are the remnants of cells which have undergone colloid degeneration. The whole of the cell arrangement is obscured, and the cells that remain consist of delicate bladder-like membranes containing colloid material.

M.N. 2002. Dr. Dreschfeld.

MESENTERY: Spindle-celled Sarcoma. 38 : 65 · 2

The mass of tumour growth, the half of which is shown in this specimen, was divided into two parts corresponding to two lymphatic glands, one much larger than the other, and apparently the primary growth. The cut surface of the specimen shows that the tumour has a soft, friable structure, with large areas of necrosis, and discoloration here and there from hæmorrhage.

M.N. 2003. Dr. Dreschfeld.

OMENTUM: Lympho-Sarcoma. 38 · 1 : 65 · 9

The specimen shows an enormous, rounded, somewhat lobulated, mass of tumour, having a smooth surface, with the remains of mesentery and omentum attached to its outer aspect.

The microscopic section shows that the tumour is composed of masses of small, round cells, separated by a considerable amount of stroma, in which run large blood vessels.

M.N. 2007. D.B. 141. P.M.M. 1884, No. 133. Oct. 31, 1885. Dr. Dreschfeld.

MESENTERY; Sarcoma. 38 : 65 · 3

On opening the abdomen the stomach was found so distended that it occupied the greater part of the cavity. The obstruction was due to the presence of a large mass of lymphatic glands situated near the duodenum. The prevertebral glands in the abdomen were generally enlarged, and those at the upper part formed the large mass seen in the specimen. The aorta and vena cava are more or less surrounded by the mass, but there was no marked œdema of the lower limbs. The mediastinal, cervical, axillary and other lymph glands were free from enlargement.

Microscopic examination shows the tumour to be composed of sarcomatous tissue, made up of round and spindle cells, and cells of a myeloid type.

M.N. 2009.

PELVIC PERITONEUM; Sarcoma. 38 · 4 : 65 · 1

The specimen shows a large round tumour occupying the pelvic cavity. It is situated under the coccyx, which seems to have been pushed backwards and upwards. In front of the tumour are situated the blood-vessels and rectum, with a portion of skin surrounding the anal opening.

Microscopic section shows that the tissue has been exceedingly vascular, and has suffered from very extensive hæmorrhage. Around the blood-vessels a type of tumour growth has occurred which consists of masses of cells rather large in size, showing large, oval, somewhat pale nuclei. The tumour is an angeio-sarcoma, large-celled in type.

OMENTUM and DIAPHRAGM: Secondary Carcinoma. 38 · 1 : 66 · 4
83 · 3 : 66 · 4

M.N. 2876. D.B. 4181. P.M.M. 517. Dec. 23, 1903. Dr. Wilkinson.

The case showed extension of cancer to the omentum and diaphragm from primary cancer of the bile ducts. The omentum consisted of a large heavy quadrilateral mass hanging from the transverse colon. Its vertical length is 4—6 inches. The growth does not quite reach the bowel above. The anterior

and posterior surfaces are roughly flattened and irregularly nodular. In some nodules small hæmorrhages are seen. On section the mass is firm, though somewhat friable. The cut surface is dry, slightly granular, pale-yellow, with small hæmorrhages. It is an inch in thickness below. The structure is a columnar-celled carcinoma. The diaphragm shows a similar irregular nodular thickening of the peritoneal aspect. The nodules are not so large. On the pleural surface there are a few scattered disc-like nodules. (For clinical notes see liver M.N. 2875—36 : 66·4.)

M.N. 3271. D.B. 1223. P.M.M. 1889, No. 307 Dr. Graham Steell.

MESENTERY and SMALL INTESTINE: Diffuse Lympho-Sarcoma. 38 : 65 · 9

A large, somewhat lobulated, mass of sarcomatous growth is seen in the mesentery, and it extends as a flat infiltrating growth round the corresponding piece of intestine, forming an annular thickening. The primary growth had occurred in the upper part of the abdominal cavity and had surrounded the cardiac end of the stomach. The growth had invaded the small intestine at two other places. The glands in the abdomen were extensively invaded. The bronchial glands were enlarged, but the lung was not involved.

The patient was a male, aged 38. He began to lose flesh and to complain of vomiting 3 months before death.

M.N. 3295. D.B. 4216. P.M.M. 582. May 17, 1904. Dr. Dreschfeld.

GREAT OMENTUM and TRANSVERSE COLON: Endothelioma. 38 · 1 : 66 · 5

The specimen shows a large white mass of firm new growth situated in the omentum. It lay transversely below the greater curvature of the stomach, and reached the umbilicus. The surface is slightly nodular. At one end it directly invaded the spleen. A similar mass occupied the mesentery and caused marked fore-shortening.

Microscopic section showed both tubular and acinous aggregations of cells.

The patient was a male, aged 58. (See spleen M.N. 3313—45 : 66·5.)

M.N. 3315. D.B. 4293A. P.M.M. 677. Jan. 12, 1905. Dr. DONALD.

PERITONEUM (covering Small Intestine): Endothelioma. 38 : 66 · 5

Notes:—On opening the abdomen the bowels were found very much distended, though here and there were portions of the small intestine of normal calibre, or somewhat contracted. The surface of the bowels and the mesentery showed widely and indiscriminately scattered small, firm, grey, prominent nodules having a "shotty" feeling. The largest individual nodules reached the size of a grape-seed; but they were clustered in three places—namely, (1) about the pylorus, (2) hepatic flexure, and (3) middle of ascending colon; they had coalesced extensively and had produced puckering of the peritoneum; and in addition the centres of these masses were found to be soft and of a white colour. Similar soft white nodules were found along the upper border of the pancreas, but not involving that organ. There was also much firm matting of the pelvic viscera, involving adjacent loops of small intestine and the cæcum, and in this matting were found groups of grey nodules. The coats of the bowel were somewhat injected; but no recent exudation of fibrin was seen. The peritoneal cavity contained about two pints of dark-brown, clear, serous fluid. The mucous membrane of the gastro-intestinal tract was normal.

Microscopically the growth was found to be a typical endothelioma.

The patient was a female, aged 63. No signs of secondary invasion of lymph glands, liver or other abdominal organs were seen.

M.N. 3437. D.B. 4567. P.M.M. 717. May 27, 1905. Dr. DRESCHFELD.

INTESTINE; Old Standing and Recent Peritonitis. Perihepatitis. 38 : 66 · 3
38 : 55 · 1
38 : 54 · 2
36 : 53 · 1

The upper specimen consists of portions of the large and small intestines, with some of the omentum. The serous membrane is greatly thickened by cancerous infiltration, and the surface is covered by a layer of fibrinous lymph. The bowel is much compressed, and the mucous membrane is thrown into irregular folds.

The lower specimen is a portion of liver from the same case. Its outer

surface is granular and shaggy from acute peri-hepatitis. On the cut surface the acini are seen to be very imperfectly defined, and the whole tissue has a pale brick-red colour. At one part of the liver (not shown in the specimen) was a small area of necrosis, probably syphilitic in origin. (For histological description see stomach M.N. 3436—34 : 66·3, and heart M.N. 3435—12 : 41.)

M.N. 3438. D.B. 4590. P.M.S. 449. June 6, 1905. Mr. Southam.

PERITONEAL COAT OF LARGE and SMALL INTESTINE and LIVER: Secondary Cystoma. 38 : 67 · 5 / 36 : 67 · 5

The portion of large intestine shows a very extensive infiltration of its serous and subserous tissue with cancerous growth. The outer surface is comparatively smooth, but mottled in appearance. It is very nodular, some of the nodules being the appendices epiploicæ infiltrated and thickened so as to form firm erect masses projecting from the peritoneal surface.

Small intestine and attached mesentery :—The surface is covered with white disc-like firm nodules, some of which show a depression in the centre. The mesentery is much fore-shortened. The omentum in this case was reduced to a mere strip, and the entire peritoneum was thickened and opaque. The growth had also invaded the left pleura.

Liver :—The organ is of normal size and shape, and weighed 50 ozs. Numerous white, rounded, fairly well-defined nodules, generally of small size, are scattered throughout both lobes. The primary growth was in the ovary. (See ovary M.N. 3416—65 : 67·5, and diaphragm M.N. 3415—83 : 67·5.)

M.N. 3497. D.B. 4679. P.M.M. 745. Aug, 21, 1905. Dr. Wilkinson.

OMENTUM, TRANSVERSE COLON, and GALL BLADDER: Carcinoma. 38 · 1 : 66 · 4 / 36 : 66 · 4

The omentum is the seat of a very large, irregularly nodular, mass of firm, new growth, involving its entire extent. It forms a large cake, which is thickest below. It is of firm consistence, and weighed, with the transverse colon, 56 ozs. Its surface is of a very pale, yellow colour, with here and there minute hæmorrhages. It was firmly adherent in places to the parietal peritoneum on the anterior abdominal wall, especially in the right iliac region, and in the region of the splenic flexure. On section it has a slightly opalescent, greyish-white

colour, and is studded with minute yellow points. The peritoneum, as a whole, was slightly thickened and opaque; throughout it is studded with innumerable, projecting, circular, oval, irregular, firm, white discs, of very variable size; many of them have a distinct saucer-like depression on the surface. No part of the peritoneum was exempt from these growths. They were least marked on the anterior abdominal wall, and were most thickly distributed over the diaphragm, the mesentery (especially near its junction with the small intestine), and in the pelvis. The cavity of the peritoneum contained about 2 pints of limpid, dark-brown, slightly turbid fluid. Some small shreds of fibrin lay between the mass in the omentum and the anterior abdominal wall. The gall-bladder is embedded in a prolongation of the omental mass along the hepatic omentum, and this extension invades the liver substance for a zone of about an inch and a half in depth around the gall-bladder. The gall-bladder contained about 30 gall-stones, but hardly any fluid (pale mucus). The mucous membrane is smooth and of a pale-grey colour; its outer wall is lost in the mass of growth. The bile ducts were normal. There were no signs of growth on the mucous membrane of the bowels or stomach, and the other abdominal organs were normal.

Microscopic examination shows a structure adenomatous in type, with much fibrous stroma and gland-like alveoli, lined by columnar epithelium.

The patient was a female aged 57. She did not complain of any illness till within 7 weeks of her death—the first symptom was pain and discomfort in the right iliac fossa. (See intestine M.N. 3525—38 : 66·4.)

M.N. 3525. D.B. 4679. P.M.M. 745. Aug. 21, 1905. Dr. Wilkinson.

SMALL INTESTINE: Carcinoma of the Peritoneal Coat. 38 : 66 · 4

The specimen shows a portion of the small intestine. The peritoneal covering at the junction of mesentery and intestine, is the seat of a continuous nodular thickening, due to the growth of an adeno-carcinoma, which had its primary seat in the omentum. There are also a few flat nodules of growth on the serous coat of the bowel. (See omentum M.N. 3497—38·1 : 66·4.)

M.N. 3654A, B. D.B. 4721. P.M.M. 767. Nov. 1, 1905. Dr. Harris.

PERITONEUM OVER BOWELS and DIAPHRAGM: Endothelioma. 38 : 66 · 5

The peritoneum is the seat of a diffuse thickening and opacity, and on the serous surface there are innumerable, small, flat discs, of a white colour, and of very firm consistence. Some of them are cystic. The largest of these discs are about $\frac{1}{4}$ inch across. They are most thickly distributed on the diaphragm, and especially its right half, and here also the diffuse thickening of the peritoneum is most marked. The surface of the diaphragm is very uneven and of an opaque cream colour. The nodules of growth are also abundant in the pelvis and over the bladder, also along the sides of the cæcum and ascending colon. No part of the abdominal cavity, except the anterior wall, is free from them. The omentum is reduced to a flat strip of dense white tissue, about 3 inches long, an inch deep, and $\frac{1}{2}$ inch thick. There were very firm, fibrous adhesions, between the organs lying just below the hilum of the liver. No sign of ulceration or growth was found along the mucous membrane of the bowel or stomach. The growth in the peritoneum had caused marked constriction of the lumen of the bowel; and the mucosa at these places is raised into ridges, or polypi, or sessile cysts of more or less tense consistence. One very marked constriction lay about 5 inches above the anus, and below this point the mucosa is very smooth, and of a homogeneous, deep purple colour. The peritoneum contained only an ounce of clear, brown fluid.

Microscopic examination shows a very marked development of fibrous matrix in which lie a few scattered alveolar or tubular structures lined by cubical cells.

The patient was a male, aged 45. There was a history of illness for 18 months, with indefinite abdominal symptoms, of which ascites and diarrhœa, alternating with constipation, were the most prominent. At the autopsy there were found broncho-pneumonia and brown atrophy of the heart. No secondary growths in liver or elsewhere. (See lung M.N. 3655—25 : 52·1.)

PERITONEUM: CYSTS.

M.N. 1994. D.B. 858. Nov. 26, 1888. Prof. Young.

OMENTUM: Cyst. 38·1:67·1

Attached to the omentum is a cyst, about the size of a pigeon's egg. The greater part of the wall is thin and semi-transparent. The remainder is thickened and opaque. The contents are a clear fluid.

M.N. 1998B. Mr. Turner.

PERITONEUM: Cystoma. 38:67·5

The specimen shows a portion of the peritoneum closely studded with round cystic bodies, varying in size, and multilocular in character. The history of the case has been lost.

The section shows microscopically that the tissue is composed of cysts lined with columnar epithelium, and a large number of papillary processes are seen sprouting from the wall into the cavity of the cysts. The matrix is a very loose fibrous tissue, containing a few small cells, and showing widely-dilated lymphatics.

M.N. 2272. Mr. Stanmore Bishop.

OMENTUM: Hydatid Cysts. 38·1:67·4

Secondary cysts form a hydatid tumour of the omentum, which was tapped and washed out after being stitched to the abdominal opening. No history of the case could be obtained.

M.N. 2756. D.B. 3823. Nov. 6, 1900. Dr. Graham Steell.

RETRO-PERITONEAL TISSUES: Cystoma. 38·2:67·5
SPLEEN: Lardaceous Infiltration. 45:42·5

The specimen includes a section of spleen exhibiting sago-waxy infiltration situated in a mass of cystic growth. The contents of the cysts has largely disappeared, but in some of them a part of the contents has become inspissated, and forms a thin lining to the cavities. Originally the contents of the cysts consisted of a peculiar jelly-like substance which was not fluid, but could be broken in lumps. In the majority of cysts this substance was of a faint-yellow colour, but in some there was an appearance as if it had been mixed with powdered chalk. Calcification had occurred here and there.

The microscopic examination showed that the cysts were lined with secreting cells, cubical or columnar, according to situation. (See Dr. Craven Moore, *Medical Chronicle*, 1902, p. 337.) (See peritoneum, M.N. 3450—38·1: 67·5.)

M.N. 2778. D.B. 1283. July 14, 1891. Dr. Dreschfeld.

RETRO-PERITONEAL HYDATID CYSTS. 38·2:67·4

The specimen shows a cyst with a firm wall, about the size of a child's head, containing granular material, adherent in masses to the inner surface of the wall. The cyst was situated behind the omentum, below the right lobe of the liver. The right kidney lay in front of it obliquely, and the renal vessels passed from above downwards across it; but neither vessels nor ureter were obstructed, although they were attached to the wall of the cyst. The cyst was not connected with any of the abdominal viscera, and its attachments could easily be torn, except that by which it was connected with the vertebral column, which gave it a firm, tough, cartilaginous pedicle. There was no erosion of the bone. The contents of the cyst were clay-coloured, curdy material. In its lower part it was soft, dark yellowish-brown, like sand, and more adherent to the wall. Amongst this were glistening particles of cholesterin.

Microscopic examination did not reveal any hooklets, but the wall consisted of a series of laminæ, proving that it was a hydatid cyst. (*Manchester Pathological Transactions*, Vol. i., p. 51.) (See heart, M.N. 1387—12:27·1.)

M.N. 3022. Mr. WRIGHT.

OMENTUM: Cyst. 38·1:67·1

The specimen shows a small serous cyst of the omentum, the size of a grape.

The patient was a married woman, aged 33 years, who had suffered from an ovarian cyst for 7 months. During the operation of removal two small omental cysts were also found and removed, and of these the specimen preserved was the larger. Operation Jan. 10, 1902.

M.N. 3028. Mr. WRIGHT.

RETRO-PERITONEAL TISSUES: Cystoma. 38·2:67·5

The specimen shows the sac of an inguinal hernia removed by operation. The sac contained a mass of tumour, a finger-like process of which has been left adherent to the sac. The wall of the sac is much thickened. Suspended at the side of the sac is a portion of the tumour which was removed from the cavity. (For the histological report see retro-peritoneal tissues M.N. 3545—38·2:67·5.)

M.N. 3438. D.B. 4590. P.M.S. 449. June 6, 1905. Mr. SOUTHAM.

PERITONEAL COAT OF LARGE and SMALL INTESTINE and LIVER: Secondary Cystoma. 38:67·5 36:67·5

The portion of large intestine shows a very extensive infiltration of its serous and subserous tissue with cancerous growth. The outer surface is comparatively smooth, but mottled in appearance. It is very nodular, some of the nodules being the appendices epiploicæ infiltrated and thickened so as to form firm erect masses projecting from the peritoneal surface.

Small intestine and attached mesentery:—The surface is covered with white disc-like firm nodules, some of which show a depression in the centre. The mesentery is much fore-shortened. The omentum in this case was reduced to a mere strip, and the entire peritoneum was thickened and opaque. The growth had also invaded the left pleura.

Liver:—The organ is of normal size and shape, and weighed 50 ozs. Numerous white, rounded, fairly well-defined nodules, generally of small size, are scattered throughout both lobes. The primary growth was in the ovary. (See ovary M.N. 3416—65:67·5, and diaphragm M.N. 3415—83:67·5.)

M.N. 3450. D.B. 3823. June, 1900. Dr. Graham Steell.

OMENTUM: Cystoma. 38·1:67·5

The specimen consists in a portion of the great omentum invaded by the cystadenomatous growth. (For details of the case see retroperitoneal tissues M.N. 2756—38·2:67·5.)

M.N. 3545. D.B. 4357. March 15, 1905. Mr. Roberts.

RETRO-PERITONEAL TISSUE, LIVER, SPLEEN, and KIDNEY: Multilocular Cysto-adenoma. 38·2:67·5

The specimen shows, in the upper part, a segment of the liver, and below, a segment of the spleen and kidney. Surrounding the liver and irregularly invading it from the surface, is a tumour showing multiple cysts, with smooth walls and colloid contents. The spleen is not only surrounded but almost completely replaced by the tumour. The kidney is not invaded.

Microscopic examination shows the cysts separated by a fibrous stroma, filled with colloid material and lined by cubical epithelium.

The patient was a man aged 51 years. In Jan., 1899, a tumour, the size of a walnut, of 6 years' growth, was removed from the right spermatic cord, and had the structure of a myxo-sarcoma. In Nov., 1901, a similar tumour was removed from the left spermatic cord. Subsequently the abdomen became distended from the growth of multiple tumours in the subserous and retro-peritoneal tissues of the abdomen, and death occurred in Jan., 1905. The abdomen was markedly distended by large multilocular cysts, which contained a soft, jelly-like material. The cyst-walls were composed of fibrous tissue. (See retro-peritoneal tissues M.N. 3028—38·2:67·5.)

M.N. 3748. May 8, 1902. Mr. Thorburn.

PERITONEAL HYDATID CYST. 38:67·4

The specimen consists of a thin-walled cyst, removed from the peritoneal cavity. The inner lining of the cyst is somewhat rough. The cavity was filled with daughter-cysts, some of which are enclosed with the specimen. The cyst formed a very movable tumour, and was situated beneath the right linea semilunaris below the costal margin. It was easily stripped off the peritoneum, being attached only at one pole.

M.N. 3773. D.B. 4836. Feb. 12, 1906. Mr. Burgess.

MESENTERY: Simple Cyst. 38:67

The specimen consists of a large cyst enucleated from the mesentery. The wall of the cyst is exceedingly thin, and has a smooth surface, externally and internally.

The patient was a boy, aged 10 years. At the time of operation he was suffering from symptoms of acute intestinal obstruction of 6 days' duration. There was a considerable amount of slightly blood-stained fluid free in the peritoneal cavity. The cyst was found between the peritoneal layers of the mesentery, and the intestine was tightly stretched over it, with consequent obstruction. The contents of the cyst were clear-yellowish and serous in character. Death occurred from shock some hours later. The operation was performed Feb. 10, 1906.

LYMPHATIC SYSTEM AND DUCTLESS GLANDS.

LYMPHATIC VESSELS.

M.N. 3379. D.B. 4603. P.M.M. 721. June 19, 1905.

LUNG : Dilatation of Lymphatic Vessels. 41 (26) : 27

The lungs were normal except for diffuse congestion and œdema. On the surface of each lung is seen an opaque, white, irregular network, due to distended lymphatics. The lung was removed from a man aged 47, who was brought in dead to the M.R.I. There was a carcinoma of the pylorus. (See stomach M.N. 3320—34 : 66·3.)

LYMPH GLANDS: RETROGRESSIVE CHANGES.

M.N. 1997. D.B. 2794.

MESENTERIC LYMPHATIC GLANDS: Calcification. 43·5:42·9

The specimen shows a portion of the mesentery, and attached to this are two groups of enlarged mesenteric glands, which have been infiltrated with calcareous salts.

LYMPH GLANDS: SPECIFIC INFLAMMATIONS.

M.N. 1999. Dr. Ashby.

MESENTERIC GLANDS: Tuberculosis. 43·5:56·1
43·5:44·2

The specimen is a portion of the small intestine attached to its mesentery. Groups of the mesenteric glands have become fused together at several points, and form irregular nodulated tumours. One of these is cut open, and shows the characteristic caseous necrosis of tuberculous inflammation. There is no sign of tuberculous peritonitis.

M.N. 2008. D.B. 270. P.M.M. 1884, No. 170. March 18, 1886. Dr. Simpson.

RETRO-PERITONEAL LYMPHATIC GLANDS: Tuberculosis. 43·6:56·1
43·6:44·2

In this case there was very extensive tuberculous adenitis, and the specimen is the group of glands which surrounded the abdominal aorta in front of the lumbar spine. The disease had at the same time caused enlargement of the cervical, the mediastinal and the right inguinal glands. The glands in the left groin and in the axilla were free from enlargement. The group of which the specimen is composed formed a huge lobulated mass of large caseous glands, partly softened and matted together by fibrous tissue. It extended up behind the pancreas and stomach, and downwards along the psoas muscle and the right saphenous vein. Miliary tubercles were found scattered over the peritoneum and in the spleen. There was a small nodule in one testicle, and old-standing tuberculous lesions were found in the lungs. There was also a tuberculous cicatrix on the right side of the neck.

The patient was a man, aged 28.

M.N. 3004. May 30, 1902. Mr. Wright.

CERVICAL LYMPH GLANDS: Tuberculous Adenitis. 43·1:56·1
43·1:44·2

The specimen is an enlarged lymphatic gland removed from the neck. The section shows that the gland is replaced by friable caseous material. The fibrous capsule surrounding the gland is markedly thickened.

The patient was a female, aged 23 years. Enlargement of the glands had existed during 2 years, and there had been another operation 9 months previously, when some of the glands, which had broken down to form chronic tuberculous abscesses, were scraped. Operation May 30, 1902. There was a marked family history of phthisis.

M.N. 3059. Dec. 12, 1901. Mr. Collier.

CERVICAL LYMPH GLANDS: Tuberculous Adenitis. 43·1:56·1

The specimen is a group of enlarged lymphatic glands removed from the neck. On section the glands can be seen to be infiltrated with caseous material separated by thick fibrous septa.

The patient was a woman, aged 22 years. There had been gradual enlargement of the glands for 12 months. Operation Dec. 12, 1901. Recovery was uneventful.

M.N. 3083. Jan. 29, 1902. Mr. Collier.

CERVICAL LYMPH GLANDS: Tuberculosis. 43·1:56·1
43·1:44·2
43·1:42·9

The specimen consists of a mass of tuberculous glands. The glands are very much enlarged, the capsule is roughened, and the cut section shows white nodules of calcareous tissue, arranged in round areas, separated by a fine fibrous reticulum.

The patient was a youth aged 19 years. The glands were removed from the neck and axilla on both sides. There was a marked family history of phthisis, and 6 months' history of enlargement of these glands.

M.N. 3093. Jan. 18, 1903. Mr. Platt.

CERVICAL LYMPH GLANDS: Tuberculous Adenitis. 43·1:56·1
43·1:44 2
43·1:42·9

The specimen consists of one half of an enlarged tuberculous gland from the neck. The gland shows a large number of necrotic foci and some of the smaller foci are caseous, but the majority have become calcified, and have a white, chalky appearance.

The patient was a youth aged 15 years. The glands were excised Jan. 18, 1903.

M.N. 3139. March 28, 1902. Mr. Wright.

CERVICAL LYMPH GLANDS: Tuberculous Adenitis. 43·1:56·1

The specimen presents a group of enlarged lymphatic glands removed from the submaxillary region of the neck. The sections show infiltration with a certain amount of caseous tuberculous deposit which is not broken down, but the greater part of the tissue is fibrous in character.

The patient was a boy, aged 12 years. There was a history of 6 weeks' gradual enlargement of the glands, which were removed by operation March 28, 1902.

M.N. 3180. Mr. Platt.

MESENTERIC LYMPH GLANDS: Tuberculosis, Calcification. 43·5:56·1
43·5:42·9

The specimen consists of two enlarged calcareous lymphatic glands removed from the mesentery by laparotomy from a case of old-standing tuberculous peritonitis.

The patient was a man who was admitted to the Infirmary with symptoms of acute intestinal obstruction due to fibrous adhesions resulting from old tuberculous peritonitis. The glands were removed during the operation for the relief of the obstruction.

M.N. 3475. D.B. 4308. Feb. 6, 1905. Dr. Ashby.

BRONCHIAL GLANDS and LUNGS: General Tuberculosis. 43·4 : 56·1 / 25 : 56·2

The specimen shows extreme enlargement of the bronchial glands. Both lungs are studded with miliary tubercles. The tubercles vary in size; some are distinctly circular, others are irregular in shape. Their arrangement also presents slight differences. Some by their confluence exhibit a rough rosette, others a well-defined circle. The different depths of colour arise from the varying extent of caseation. In the left upper lobe on the anterior external surface are several patches which show the characteristic appearance of emphysema. Along the edges of both lungs similar areas occur. The sub-pleural vessels are injected, and their courses and ramifications can be easily followed. Death occurred from meningitis. Miliary tubercles were present in the spleen, kidneys and liver, but the primary infection in this case occurred in the bronchial glands.

The patient was a child, aged about 1 year. (See spleen M.N. 3464—45 : 56·2.)

M.N. 3663. D.B. 4723. P.M.M. 769. Nov. 3, 1905. Dr. Harris.

ABDOMINAL LYMPH GLANDS: Caseation. 43·5 : 44·2

The large flattened nodular mass of enlarged glands seen in the specimen lay in front of the lumbar vertebræ. Its upper border lay behind the pancreas. It has the appearance of coalesced enlarged lymph glands, the largest individual gland being of the size of a large plum. The lower sinuously-curved limit came down into the mesentery to within $\frac{1}{2}$ inch of the small intestine. The whole mass felt firm, but not hard. It was adherent to the vertebræ, but had not invaded the bone. The aorta above is partly surrounded by a thin extension of this growth. Apparently there was no compression of the inferior vena cava. On section the growth is seen to be made up of fairly large irregular-shaped islands of a pale-yellow cheesy matter separated by strands of grey fibrous tissue. The caseous matter is very friable, but there are no signs of softening or cavitation. A similar condition was found in the axillary glands on the right side. These, however, were much smaller than those in the abdomen,

and had not coalesced. Another enlarged gland of like character lay in front of the œsophagus in the upper part of the thorax, and had compressed the gullet near the level of the tracheal bifurcation.

Microscopic examination shows, in addition to caseous necrosis, a large amount of hyaline degeneration in a fibrous matrix, in whose spaces are strands of small round cells. There is little evidence of typical tuberculous granuloma, but there are one or two giant cells. Examination for tubercle bacilli was negative.

The patient was a male, aged 55, who first became ill in April, 1905, and complained of general weakness and inability to work, and vomiting. He had been under treatment ever since. He was admitted to the M.R.I. on Oct. 9, 1905, suffering from dyspepsia. The enlarged glands above noted were detected. His temperature ran a peculiar course, which resembled that of quartan malaria. There was no history of ague, nor were the hæmamœbæ found in his blood. Leucocytosis was present. He gradually became exhausted, and died on Nov. 2, 1905.

LYMPH GLANDS: MALIGNANT TUMOURS.

M.N. 570.

POPLITEAL GLANDS: Melanotic Sarcoma. 43 : 65 · 5
97 · 3 : 41
97 · 6 : 41

The specimen is a vertical section of the knee joint showing bones and soft structures. Attached to the posterior part of the femur, apparently tied up in a bundle, are seen a number of variously-sized glands, of a deep-black colour, very evident on section. The bones show senile changes in thinning of the compact tissue and opening up of the cancellous structure.

M.N. 1123. D.B. 1138. P.M.S. 1887, No. 224. Aug. 22, 1890. Mr. Whitehead.

MEDIASTINAL GLANDS: Carcinoma. 43 · 4 : 66 · 3
TRACHEA: Stenosis. 23 : 25 · 1
23 : 66 · 3

The tumour, the size of a tangerine orange, was found in the upper part of the mediastinum, on the right side. It pressed on the trachea just above the right bronchus. It apparently arose from one of the glands of the mediastinum. The obstruction to the bronchus was followed by suppurative bronchitis, pneumonia, and gangrene. The tissue has the microscopic characters of carcinoma. Groups of epithelial cells are seen in a well-developed matrix.

M.N. 1205. D.B. 552. Aug. 22, 1887. Dr. Dreschfeld.

MEDIASTINAL GLANDS: Lympho-Sarcoma. 43 · 4 : 65 · 9
25 : 65 · 9
12 : 65 · 9
24 : 25 · 1
24 : 27 · 1
26 : 65 · 9

The specimen shows, along the hilum and inner border of the lung, a broad band of sarcomatous growth about 3 inches in width. From this a transverse band passes horizontally at a level which probably corresponds to the division of the lobes. The upper lobe is very much compressed, and is reduced

to a small triangular mass which is becoming infiltrated at the edges. In the lower lobe the process has been one of infiltration rather than of compression, and the alveolar structure is replaced by a mottled dark-grey sarcomatous tissue. The sarcoma has also invaded and thickened the pleura on the one hand, and the pericardium and epicardium on the other, forming in the latter situation sub-epicardial nodules. At the back, the aortic arch is seen embedded in the tumour mass, and the left bronchus is occluded. A large mass of tumour surrounds the lower part of the trachea and the superior vena cava. There is in the remaining lung some evidence of bronchial dilatation due to septic bronchitis following the obstruction of the lumen.

Microscopically the growth is found to consist of small round cells.

M.N. 1206. D.B. 1021. Feb. 14, 1890. Dr. Dreschfeld.

BRONCHIAL LYMPH GLANDS: Lympho-Sarcoma. 43·4 : 65·9
25 : 65·9
26 : 65·9

The speeimen shows the half of one lung with the lower part of the trachea. At the root of the lung is a large mass of growth, white, solid, and fleshy, and from the circumference of the central mass, white, finger-like processes pass into the lung substance. These indicate the extension of the tumour along the bronchial walls, and in the centre of some of these processes the occluded lumen of the bronchus can still be traced. Still further out from the central mass there is a growth of tumour in the lung parenchyma. In this region, the growth is more of a diffuse infiltration, and hence the area has the appearance of tumour growth mixed with the darkly-pigmented lung tissue. The inter-lobar and outer pleural membranes have also been very much thickened by the extension to them of the tumour growth. The effect of the growth on the lung tissue still remaing has been to compress it. The lymphatie glands round the trachea are much enlarged. In the central mass of the tumour, there is embedded a large pigmented lymph gland, which has been very slightly, if at all, invaded by the tumour. (See bronchial glands M.N. 1619—43·4 : 65·9.)

M.N. 1211.

MEDIASTINAL GLANDS: Lympho-Sarcoma. 43·4:65·9
25:65·9
11:65·9

The specimen shows the heart and both lungs. The right lung is not much invaded by the tumour, but the left lung is very nearly entirely replaced by it. The growth is so formed that it encloses the heart almost completely, but it does not seem to have spread on to the epicardium. The œsophagus and blood-vessels are embedded in the tumour. The surface of section shows that this tumour has a fibrous structure, with areas of more cellular tissue enclosed amongst the fibrous meshes. Part of the left lung indicates that the tumour has in some measure infiltrated the lung tissue.

M.N. 1555. D.B. 1562. Dr. Harris.

BRONCHIAL GLANDS: Lympho-Sarcoma. 43·4:65·9
LUNG: Suppurative Pneumonia. 25:65·9
25:52·1
26:55·1

The specimen shows a section of the lung with the termination of the trachea. At the root of the lung an egg-shaped tumour (seen at the back of the specimen) has formed, and this has infiltrated the bronchial wall, and grown out into the lumen, giving rise to pneumonia. The whole lung is in a state of consolidation. The bronchi are dilated by the septic catarrh which has taken place. The growth has extended along the peri-bronchial tissue into the substance of the lung for a short distance. The whole growth is not very large, and the early development of pneumonia has been due apparently to the infiltration of the bronchial wall. There is old-standing pleurisy, and the lung is markedly pigmented.

M.N. 1558. D.B. 1139. P.M.M. 1889, No. 242. Nov. 30, 1890.
Dr. Graham Steell.

MEDIASTINAL and BRONCHIAL LYMPH GLANDS: Lympho-Sarcoma. 43·4:65·9
25:54·5

A section of the left lung shows a very large cavity at the apex, with irregular somewhat firm walls. The rest of the lung is riddled with innumerable irregularly-shaped cavities of various sizes containing yellow pus. The intervening lung tissue is very firm and pale-grey, and its spongy texture is observed

except at the base. At the hilum is seen a large oval mass of tumour growth, the size of an orange. It lay between the aorta and the bronchi, and extended upwards as far as the trachea and downwards as far as the 6th intercostal space. A process of this growth completely surrounds and to a large extent occludes the left bronchus. The growth is white and of soft consistence.

The patient was a female, aged 26.

M.N. 1619. D.B. 1021. P.M.M. 1889, No. 141. Dr. Dreschfeld.

BRONCHIAL LYMPH GLANDS: Lympho-Sarcoma. 43·4 : 65·9
25 : 65·9

This specimen shows a portion of the right lung extensively infiltrated with sarcomatous growth. The chief growth was in the right lung, and in the glands at its hilum. The growth, in addition to invading the lung, had also grown into the left auricle and had caused obstruction to the venous circulation of the upper extremities, with resulting œdema on both sides. There was acute pleurisy and acute pericarditis. There was also spinal curvature (scoliosis) with the concavity of the curve to the right side. (See bronchial glands M.N. 1206—43·4 : 65·9.)

The patient was a male, aged 51.

M.N. 1624. D.B. 490. P.M.M. 1896, No. 97. Dr. Dreschfeld.

BRONCHIAL LYMPH GLANDS: Lympho-Sarcoma. 43·4 : 65·9
24 : 52
25 : 54·4

Occupying the hilum of the lung there is seen a large mass of sarcomatous tumour. The tumour growth in this case has been of the expansive rather than the infiltrating type. Hence the mass is composed of simple tumour tissue with the bronchial glands embedded in its midst. There is old-standing pleurisy. The effect of this growth has been to obliterate the bronchus, with subsequent development of septic bronchitis and pneumonia. The surrounding zone of lung parenchyma which remains shows the presence of abscess cavities in large numbers,due to dilatation of the smaller bronchi. The pericardium was distended with blood-stained fluid. The tumour growth had extended on to the left side of the heart, and has formed nodules under the epicardium. There were none over the right ventricle. The abdominal glands are slightly involved.

M.N. 1625. P.M.M. 1886, No. 124. Nov. 28, 1887. Dr. Simpson.

MEDIASTINAL LYMPH GLANDS: Lympho-Sarcoma. 43·4:65·9

This specimen consists in the left lung, the aorta, and œsophagus. The lung shows old-standing pleurisy, and in the posterior mediastinum, behind and beneath the arch of the aorta, a large mass of new growth has formed. The growth is of an infiltrating character, and shows infiltration of the lung parenchyma in a radiating manner. It has also infiltrated the wall of the œsophagus, forming raised, somewhat flat, nodules on the surface of the wall, and one of these has ulcerated. A probe could be passed from this ulcer to the substance of the lung, which round the area so reached was gangrenous. The growth has also infiltrated the pericardial sac at its upper part. The lung is darkly pigmented with carbon, and in the gangrenous area is in a shreddy, disorganised condition. There is no record of other metastases.

M.N. 2001.

MESENTERIC GLANDS: Lympho-Sarcoma. 43·5:65·9

The specimen shows a huge lobulated mass of sarcomatous growth, which had apparently originated in the lymphatic glands of the mesentery.

M.N. 2800. D.B. 4008. P.M.M. 328. Oct. 5, 1902. Dr. Wilkinson.

MEDIASTINAL GLANDS: Sarcoma. 43·4:65·9
25:44
26:55·1

There is a large growth situated above and around the root of the right lung. It is in some parts well defined and in others is infiltrating the lung. The pleura is thick and adherent, and can be traced through the substance of the growth at its upper part. The lung shows condensed tissue in its peripheral parts. Above, it is infiltrated with growth. In the centre is a large cavity, of 2 fluid oz. capacity, with ragged soft walls. It contained two large sloughs lying in the midst of a greenish-brown turbid fluid. These filled the entire cavity. There was no foul odour. The cavity is traversed by fairly large branches of the pulmonary artery. It communicates freely with the right bronchus, which is patent. The surrounding tissue of the lung was consolidated and friable. The tracheal bifurcation and the commencement of the bronchi were firmly embedded in the growth. The œsophagus is adherent to the growth for about 1 inch, but it has not suffered. The heart is somewhat dis-

placed to the left, and is rather small, but is otherwise normal. The pericardium, where it was adherent to the right pleura, was thickened and opaque. The ascending aorta and innominate and right subclavian arteries were adherent to the growth, but not invaded or compressed by it. The innominate veins are buried in the substance of the growth. Their walls are thickened, and the lumen was completely obliterated.

Microscopical examination:—The tumour was composed of round cells, moderately large in size, with a considerable amount of fibrous matrix.

The patient was a woman, aged 38. There was marked œdema of forearms, head and neck. There were enlarged veins over the anterior surface of the trunk, and the blood flowed downwards towards the inferior vena cava. There was much dyspnœa, and cough, and occasional hæmoptysis, but usually the sputum was grey muco-pus. The temperature was normal. There was a history of swelling of the neck for 12 months before death. The cause of death was asthenia.

M.N. 2802. D.B. 4011. P.M.M. 331. Oct. 12, 1902. Dr. Harris.

BRONCHIAL GLANDS: Lympho-Sarcoma. 43·4:65·9

There is seen a large mass of soft white growth, originating in the root of the right lung, spreading into it and infiltrating the lower lobe, so that it is extensively solidified. The mass is adherent to the under surface of the tracheal bifurcation and to the under aspect of the left bronchus. The right bronchus and œsophagus are embedded in the mass of growth. The growth extended between the œsophagus and aorta, but was not adherent to the aorta. It extended down the entire posterior mediastinum, and was adherent to, but did not invade, the bodies of the lower dorsal vertebræ. The growth appeared on the under surface of the diaphragm as a bilobed mass in front of the inferior vena cava. The diaphragmatic peritoneum showed evidence of fibrinous peritonitis. The right pleura was thickened throughout, and to a large extent adherent. The pericardial layers also are adherent; the outer layers are adherent to the growth on the right side. Several lymphatic glands at the root of the lung appear quite separable from the growth. The superior vena cava is slightly adherent to the growth. The inferior vena cava was embedded in it, and there was marked œdema of the lower limbs and genitals; the vein, however, was not occluded.

Microscopically the tissue is a small round-celled sarcoma. There was no distinct reticulum among the cells.

The patient was a male, aged 42.

M.N. 2829. D.B. 4082. P.M.M. 410. May 19, 1903. Dr. Judson Bury.

RETRO-PERITONEAL LYMPHATIC GLANDS: Secondary Carcinoma. 43·6:66·3

Round the aorta and inferior vena cava there is a group of lymphatic glands enlarged by metastatic growth in a case of cancer of the stomach. (See stomach M.N. 2828—34:66·3.)

The patient was a male, aged 53.

M.N. 2846. D.B. 4113. P.M.M. 435. July 3, 1903. Dr. Harris.

MEDIASTINAL LYMPH GLANDS and LUNG: Lympho-Sarcoma of the Mediastinal Glands, with Secondary Sarcoma of the Lungs. 43·4:65·9, 25:65·9, 25:52·1, 26:55·1

The left lung is large, and shows a grey surface. On section a large oval rosette-shaped mass of soft yellowish-white growth is seen in the centre of the lower lobe, of 3 inches diameter. At its lowest part it comes near the surface, but does not reach it. The growth is well-defined, but there is no capsule. It shows no softening nor hæmorrhage. The rest of the lung shows small unilocular smooth-walled cavities containing pus—the dilated bronchi—none of them exceeding half an inch in diameter. They are most abundant in the region of the growth. Apart from this, the intervening tissue shows complete consolidation. It is grey, non-crepitant, and studded with small yellowish suppurating areas, the openings of small bronchi. The bronchus of the left lung is obstructed by a mass of new growth springing from that in the lower lobe. The pleura is much thickened. In the posterior mediastinum there is an elongated mass of enlarged glands on each side of the tracheal bifurcation. It presses on, but has not invaded, the wall of the œsophagus. The growth has invaded the posterior wall of the pericardium as a nodular white mass. The right lung was enlarged, crepitant, and congested. The heart and aorta were normal.

Microscopical examination shows a round-celled sarcoma. A great proportion of the cells are large. Embryonic blood-vessels and a small amount of stroma are present.

The patient, a male, aged 31, had a history for 9 months of cough and expectoration, pain in the side, and progressive loss of strength. The heart was not displaced. On the left side there was universal dulness and absence of breath sounds. There was hæmorrhage into the pericardium. The patient died from exhaustion.

M.N. 2892. D.B. 4220. P.M.M. 592. June 17, 1904. Dr. Graham Steell.

BRONCHIAL GLANDS: Sarcoma. 43·4:65·9
LUNG: Suppurative Broncho-Pneumonia. 25:65·9
25:52·1

The right lung is very much enlarged. It weighed 68 oz. The surface was covered with thickened pleura. At the hilum is a large cream-coloured nodular mass. Its diameter was 4 inches. It completely embedded the superior vena cava, leading to its obstruction, and causing œdema of the head and neck. It also invaded the air passages, partially blocking the trachea at the bifurcation. It extended to the pericardium (parietal). The whole lung is much pigmented and is anæmic and airless. In the upper lobe is a large oval white mass, which occupied about half the total area of the lobe. The growth is well-defined and is free from softening and hæmorrhage. It is moderately firm in consistence. Some of the large bronchi were surrounded by a ring of tumour tissue. The upper half of the lung is firm and dark-grey. The lower half shows cavity formation from dilated bronchi. The middle and lower lobes show large numbers of these cavities of lesser size. The walls are smooth, soft and grey, and roughly loculated.

Microscopic section showed the tumour to be a small round-celled sarcoma.

The patient was ill for 6 months, suffering from progressive dyspnœa. Distended venules over the upper part of the chest were seen. The expectoration was of the red-currant-jelly variety. There was intense œdema with blebs on the arms. Towards death œdema developed in the genitals, but not in the legs. There was complete dulness over the back and part of the right chest. The other lung was congested only. There were patches of hæmorrhage in the bowel wall.

M.N. 2938. D.B. 4275. P.M.M. 671. Dr. Harris.

MEDIASTINAL LYMPH GLANDS: Lympho-Sarcoma. 43·4:65·9
25:52·1
26:54·2

In front, and to the right side of the lower third of the trachea, is a large, creamy-white mass of tumour. It surrounds the right bronchus, fills up the angle of the tracheal bifurcation, and extends along the right border of the lung. It has spread to the pericardium along the aorta and pulmonary artery. The tumour tissue has replaced the mucous membrane of the trachea, forming flat rings, and in the right bronchus it has led to partial occlusion; but

the surface is not ulcerated. Outside the bronchus there is a large mass of tumour occupying the hilum of the lung, which has compressed the lung tissue, and led to septic broncho-pneumonia. It has at the same time compressed the pulmonary artery and the superior vena cava. The pleura showed fibrinous pleurisy. The heart is of small size, and there is some stenosis of the mitral orifice from chronic endocarditis. The left auricle is slightly hypertrophied but not dilated.

M.N. 3010. March 2, 1904. Mr. Thorburn.

INGUINAL GLANDS: Squamous Epithelioma. 43·4:66·1

In the centre of the portion of skin which has been removed with the tumour mass, a cyst may be observed, the outer wall of which is very thin, while the inner wall is composed of tumour tissue. The cavity was filled with blood. The cut surface shows that the outline of the tumour was well defined, and that the structure of the tissue is that of a delicate meshwork of opaque strands lying in a hyaline semi-translucent matrix.

The patient was a man aged 61; three years ago, the penis had been amputated for epithelioma. Three months previous to the date of the present operation the glands in each groin had begun to enlarge rapidly.

M.N. 3012. April, 1903. Mr. Montgomery and Mr. Thorburn.

CERVICAL LYMPHATIC GLAND: Melanotic Sarcoma. 43·1:65·5

The specimen is an enlarged lymphatic gland removed from the neck. It has been laid open, and shows infiltration with melanotic sarcoma. The pigment is distributed in an irregular fashion throughout the tumour.

Microscopically the specimen is found to consist of an alveolar sarcoma, and shows a very copious development of melanin, some of which is deposited in the lymphatic spaces.

The patient was a female, aged 43 years. There had been rapid painless glandular enlargement for three months. The left pre-auricular and two deep cervical glands were enlarged. The growth appeared to be primary in the glands, and was probably due to the persistence of an epithelial remnant derived from a branchial cleft. The glands were removed in April, 1903. In September, 1903, recurrence took place in the subcutaneous tissue close to the umbilicus, and a growth $1\frac{1}{4}$ inches in diameter was removed February 26, 1904. There was no other recurrence at that time.

M.N. 3066. Jan. 23, 1902. Mr. Wright.

AXILLARY GLANDS: Lympho-Sarcoma. 43·2:65·9

The group of glands in the tumour growth forms a rounded lobulated mass. The surrounding fat and connective-tissue have been removed. The lobules have a uniform opaque yellow colour, and are separated from each other by strands of fibrous tissue. There is no hæmorrhage nor degeneration.

The patient was a woman, aged 50 years, and gave a history of tumour growth for $2\frac{1}{2}$ years. The masses were well encapsuled.

M.N. 3089. Mr. Platt.

INGUINAL LYMPH GLANDS: Melanotic Sarcoma. 43·3:65·5

The specimen consists of four lymphatic glands, removed from the groin, enormously enlarged by melanotic sarcoma. The glands have been laid open and sections show them to be divided by fibrous septa into spaces filled with masses of black and dark-brown friable new growth, the difference in colour being due to the variation in the development of pigment. The capsule of the glands is nowhere perforated by the growth.

The patient was a female, aged 46 years. Seven years previously a wart situated on the inner side of the middle of the right thigh began to enlarge. Two years later it was removed, and she stated that it was then the size of a bantam's egg, and purple in colour. Within a few weeks of the operation the glands in the groin commenced to enlarge. The inguinal and femoral glands were enlarged on both sides, and were removed Jan. 13, 1904. There was no local recurrence at the time.

M.N. 3253. D.B. 1165. P.M.M. 1889, No. 257. Dr. Ross.

LYMPH GLANDS OF THE MEDIASTINUM: Lympho-Sarcoma. 43·4:65·9 25:65·9

In front of the heart, and adherent to the anterior border of the right lung is a large mass of tumour growth. The ascending part of the aorta is embedded in the tumour. The growth is of firm consistency, and is of the fibrous variety of lympho-sarcoma. Both lungs are studded with masses of similar structure,

but the largest of these masses is in the posterior part of the lung. Secondary growths had occurred in the first and second ribs on the left side near the spine. Nodules of growth had greatly thickened the diaphragm. The liver and the kidneys were studded with nodules. The left supra-renal was involved in the growth, and showed a nodule about the size of a goose egg. The right was also invaded. The spleen was not involved.

M.N. 3280. D.B. 3602. P.M.M. 1897, No. 14. Sept. 29, 1897. Dr. Dreschfeld.

MEDIASTINAL LYMPH GLANDS: Lympho-Sarcoma. 43·4:65·9

The specimen shows an extensive mass of sarcoma which has grown in the mediastinal glands, surrounding, but not invading, the trachea and pericardium. There were some secondary deposits in the glands of the neck, but more in the abdomen. On the section-surface, the openings of the blood vessels surrounded by the tumour growth can be seen; one of these is thrombosed. The patient was well till about 2 months before admission. Then he commenced to have a cough, and a week later took to bed. On admission he complained of dyspnœa. The upper part of the body was œdematous, and there was marked dilatation of the superficial veins along the lower line of the ribs and also along the back. The flow of blood in these veins was downwards. He died from exhaustion and dyspnœa.

Microscopically the tumour shows small round cells.

The patient was a male, aged 22, who was occupied as a labourer.

M.N. 3282. D.B. 2508. P.M.M. 1894, No. 20. April, 1894. Dr. Harris.

MEDIASTINAL LYMPH GLANDS: Lympho-Sarcoma. 43·4:65·9
25:54·4

The specimen shows the left lung, in the root of which the growth has commenced. It has invaded the central portion of the lung and the pleura, which is thereby greatly thickened. Between the central mass and the periphery, the lung is the seat of septic pneumonia with abscesses leading to the formation of the large cavities seen in this part of the specimen. The lymph glands surrounding the great vessels are extensively invaded, and nodules appear in the pericardium. The tumour was of a very soft character. It had invaded the cervical glands. There were a few nodules in the liver, and there was a well-defined nodule in each mamma.

Microscopically the tumour is composed of small round cells.

The patient was a female, aged 34.

M.N. 3420. D.B. 4594. P.M.M. 718. June 10, 1905. Dr. Harris.

MEDIASTINAL GLANDS: Lympho-Sarcoma.

43·4 : 65·9
25 : 65·9
24 : 65·9
11 : 65·9
23 : 23
15·1 : 34·1

In the upper mediastinum and lying in front of the upper third of the pericardium is a large nodular mass of extremely soft, cream-coloured growth. It extended upwards on the right side of the lower part of the trachea, which was pushed towards the left in consequence, but the trachea is apparently not invaded. It also extended round the right bronchus and in the angle between both bronchi. The right bronchus is almost completely occluded by the growth, which has replaced the mucous membrane, forming an irregularly, flat, nodular mass. The growth has invaded the adjacent surface of the lung, and it was also adherent to the sternal end of the right clavicle, and to the first and second ribs on their anterior and axillary aspects. The growth was slightly adherent to the œsophagus behind the pericardium, but it had not extended to the mucous membrane, which was normal. The arch of the aorta was completely embedded in the tumour. The vertebræ were normal. The superior vena cava was completely surrounded, and was the seat of firm, reddish-grey thrombus. The growth has also made its way into the posterior wall of the pericardium, at its upper part, as a large, irregularly-nodular mass. The lung is normal apart from the invasion by growth above mentioned. The heart shows nothing abnormal. The growth is a small, round-celled sarcoma.

The patient, a female, aged 39, was quite well up to 2 months before her death. Pain in the chest and cough were the first symptoms, and within a fortnight her neck swelled and the veins on her chest were prominent. On admission to M.R.I., she presented the typical appearance of one suffering from mediastinal growth, the œdema, dyspnœa, and cyanosis being progressive. At the autopsy, there were secondary nodules in the posterior mediastinal glands and in the liver. (See vein M.N. 3382—15·6 : 34·1.)

M.N. 3532. D.B. 4685. Sept. 26, 1905. Dr. Dixon Mann.

MEDIASTINAL LYMPH GLANDS: Lympho-Sarcoma. 43·4:65·9
THYROID: Hypertrophy. 25:65·9
46:62

The specimen shows a new growth, the main mass of which occupies the mediastinum and apex of the upper lobe of the right lung. The larger masses are loose in texture, and contain areas of semi-translucent appearance. Smaller nodules are scattered over the whole of the pleura, and in the interstitial tissue of the lung. The lower edge of the lung is densely infiltrated by the growth, which here is more translucent than elsewhere. A portion of the thickened pleura is adherent to the sarcomatous mass and to the lower half of the upper lobe. The lung is in the condition of passive hyperæmia. The bronchial glands are invaded by the growth. The thyroid gland is enlarged, and contains large dilated spaces, which are filled with colloid material.

The patient was a female, aged 40. Ten years ago a "goitre" was removed. Six months previously an enlarged gland was removed from the left side of the neck. Severe dyspnœa and delirium preceded death. The left lung also contained a few nodules of growth, but its pleura was comparatively free.

M.N. 3604. D.B. 4362. P.M.S. 427. March 20, 1905. Mr. Wright.

RETRO-PERITONEAL LYMPH GLANDS, KIDNEY: Lympho-Sarcoma. 43·6:65·9
51:65·9

A large mass of irregular shape and apparently involving several of the tissues and organs situated in the left lumbar region was found covered by peritoneum, extending over the entire length of the lumbar vertebræ across the middle line to the right for about 3 inches. The whole mass weighed 5 lbs. Its outline was well-defined for the most part, and the consistence was uniformly firm. The surface was glistening, and though irregular, owing to the implication of various structures, was smooth. It was throughout of a cream-white colour. On its left border the rounded outline of the outer half of the left kidney projected. It was perfectly smooth, and pale cream-coloured, and was fully twice its normal length. The hilum and inner half of the organ were embedded in the main mass. The corresponding adrenal gland was indistinguishable, but a large pyramidal prolongation on the upper pole of the kidney suggested that the adrenal had become involved in the main mass of the growth. The omentum lay across the front aspect, and though incorporated

in the growth was distinctly visible as a horizontal, elongated, firm, slightly lobulated mass. The mesentery of the small intestine was thickened at its upper part by extension of the growth into its root. The pancreas was almost completely embedded in the mass, though its head was found outside the right border, of normal appearance and consistence. The bowels were not involved. The stomach on its posterior wall near the greater curvature at the lowest part of the fundus was firmly adherent to the mass of growth, but the tumour had not extended through to the mucosa. The third part of the duodenum passed through the mass of growth, but the rest of the duodenum was normal. The inferior vena cava was slightly pushed away to the right from the aorta by the growth of the tumour between these two blood-vessels. The growth was adherent to the left border of the vena cava throughout the greater part of its extent, but had not invaded it nor compressed it. The abdominal aorta down to and including the commencement of the common iliacs was completely embedded in the growth. The tumour was adherent to and inseparable from the periosteum of all the lumbar vertebræ, though these bones had apparently not been invaded by it. Numerous rounded nodular projections suggested a widespread implication of the retro-peritoneal glands, and a few of the mesenteric glands were to a less extent enlarged, but remained isolated from the main mass. The diaphragm in the region of the aorta was also invaded over a small area. The hilum of the spleen showed commencing direct invasion.

Microscopic examination showed the growth to be a lympho-sarcoma of the small round-celled type.

The patient was a male, aged 33.

M.N. 3627. D.B. 4554. Feb. 11, 1903.

MEDIASTINAL GLANDS: Lympho-Sarcoma. 43·4:65·9
25:65·9

The specimen consists in a transverse section of the thoracic contents, including the upper part of the heart and the commencement of the aorta. The left lung shows in its hilum a rounded, lobulated, white tumour, which has expanded to such an extent as to replace almost the whole of the lung tissue. Beyond the defined outline of the main mass of tumour the extension of the growth is seen in the form of rounded columnar processes, and also in a more diffused infiltration which does not so completely replace the lung tissue. The pericardium is not invaded, and the great vessels are free from obstruction.

Microscopic examination shows that the tumour is a round-celled type of sarcoma.

M.N. 3669. D.B. 4799. Jan. 20, 1906. Dr. F. C. Moore.

BRONCHIAL GLANDS: Lympho-Sarcoma. 44·4:65·9
LUNG: Pneumonic Consolidation. 25:65·9
25:52

The specimen consists of the right lung with its bronchus and the lower part of the trachea. One half of the upper lobe of the lung has been removed, and it is seen that the hilum is occupied by a mass of tumour growth, and that the lung shows signs of invasion and of secondary pneumonic consolidation in somewhat ill-defined patches. There is a layer of fibrinous exudation in the interlobar pleura. The bronchi and trachea are surrounded by a mass of new growth continuous with that of the hilum. (For clinical history see liver M.N. 3668—36:65·9.)

M.N. 3730. D.B. 4307. Jan., 1905. Dr. Marsden.

BRONCHIAL GLANDS and LUNG: Lympho-Sarcoma. 43·4:65·9
15·1:65·9

The glands at the root of the lung form a large, lobulated mass of tumour growth, and from this, extension of the tumour has occurred as a columnar fleshy projection into the lumen of the superior vena cava. In the specimen this is seen attached to a partly pigmented blood clot on its upper aspect. The upper lobe of the lung has been laid open to show the invasion of the pulmonary tissue of the apex by a pale and partly myxomatous mass. The pleura is very much roughened.

Microscopically the tumour is a small, round-celled sarcoma, with a large amount of stroma.

The patient was a man aged 28, who was occupied at the gas works. About 4 months before death he began to suffer from cough. Later dyspnœa set in, his arms and thorax became swollen, and he was very cyanosed. These symptoms increased in severity till he died.

LYMPH GLANDS: GENERAL NUTRITIONAL DISEASES.

M.N. 1631c. D.B. 1822a. P.M.M. 1893, No. 5. Nov. 8, 1892. Dr. Harris.

RETRO-PERITONEAL LYMPH GLANDS: Hodgkin's Disease 43·6:81·5

The mass is composed of a group of partially separated nodules, each formed by the enlargement of a lymph gland. On one side the surface has been removed to show the internal structure, which consists of somewhat yellowish, fibrous tissue, moderately tough and of a very fine texture. (For a description of the spleen of this case see M.N. 1631b—45:81·5.)

M.N. 3014.

CERVICAL LYMPH GLAND: Hodgkin's Disease. 43·1:81·5

The specimen consists of a lymphatic gland which has been divided into two portions. The capsule remains well-defined, and comparatively smooth, and the cut surface shows the uniform, opaque texture which arises from the characteristic overgrowth of the matrix.

M.N. 3276. D.B. 3449. P.M. 1895, No. 139. June, 1898. Dr. Leech.

LYMPH GLANDS OF THE NECK: Hodgkin's Disease. 43·1:81·5

The specimen consists in the larynx and trachea, with part of each lung attached, and masses of enlarged lymphatic glands on each side of the respiratory tract. The glands are moderately firm and fibrous, and each is enclosed in a fibrous capsule by which it is separated from those adjoining. Many of the glands were softening and becoming caseous. The groups of glands form flat bunches on each side of the trachea. The lungs show miliary tubercles and tuberculous inflammation of the bronchial glands, but there are no cavities or old fibroid cicatrices. The bronchi were congested and contained a large amount of secretion.

Microscopic structure:—The microscopic examination shows extensive areas of necrosis in the midst of a fibro-cellular tissue, from which the lymphoid tissue has largely disappeared.

The patient was a girl, aged 12. She had suffered from anæmia for 12 months, and when admitted had high temperature and cough. Death occurred from exhaustion.

M.N. 3482. D.B. 4268. Dec. 13, 1904. Dr. Dixon Mann.

MEDIASTINAL GLANDS: Hodgkin's Disease. 43·4 : 81·5

Around the bifurcation of the trachea and the large vessels, there is a mass of enlarged glands varying in size and shape. They are covered by dense capsules, and are adherent one to another. The œsophagus is deflected from its normal course.

The patient was a male, aged 16. (For a description of other specimens from this case see spleen M.N. 3483—45 : 81·5, liver M.N. 3484—36 : 81·5 and retro-peritoneal glands M.N. 3485—43·6 : 81·5.)

M.N. 3485. D.B. 4268. Dec. 13, 1904. Dr. Dixon Mann.

RETRO-PERITONEAL LYMPH GLANDS: Hodgkin's Disease. 43·6 : 81·5

The specimen shows the enlargement of the retro-peritoneal glands around the aorta and at the hilum of the kidneys. The left ureter and the right renal vein are slightly deflected. The glands are enlarged and unite to form a lobulated mass. Their capsules are thickened and adherent to adjacent glands. There is no evidence of necrosis. The kidneys are pale in colour, and are slightly mottled. They do not display any nodules.

Microscopically the small glands present at the periphery a narrow zone of ordinary lymph gland tissue. In the larger glands the normal tissue has almost entirely disappeared, one or two follicles alone remaining. Here the structure of the newly-formed tissue consists of cells lying in an irregular fibrous network. The cells are large and small lymphocytes and polymorphonuclear leucocytes. There are a few eosinophile leucocytes, and here and there can be seen a large cell containing several nuclei arranged similarly to those of the giant cells found in bone-marrow. Mingled with the cells just described there are large numbers of cells with spindle and oval-shaped nuclei, poor in chromatin. Mitotic figures are numerous. The tissue is well supplied with blood-vessels. It does not stain uniformly, and in some areas the weak staining suggests necrobiotic changes, but there is no actual necrosis. The capsules of the glands are thicker than normal.

The patient was a male, aged 16. (For a description of other specimens from this case see liver M.N. 3484—36 : 81·5, mediastinal glands M.N. 3482—43·4 : 81·5, and spleen M.N. 3483—45 : 81·5.)

M.N. 3517. D.B. 4698. Oct., 1905. Dr. Hutton.

MEDIASTINAL GLANDS, HEART, LUNGS: Hodgkin's Disease. 43·4 : 81·5
25 : 81·5

The enlarged glands encircle the trachea and large vessels, extending downwards anteriorly to the transverse portion of the aortic arch, and posteriorly to the level of the lower third of the left ventricle. The glands vary very much in size, and the posterior group is enclosed in a thick, vascular connective-tissue sheath. On section the glands are mottled in appearance, yellowish-white areas alternating with dusky-brown patches. The left lung shows considerable congestion. On its posterior surface there are a number of minute white patches situated in the sub-pleural tissues. The right lung is congested, and there is a considerable amount of consolidation. The middle lobe is uniformly consolidated. At its tip there is a small white nodule, and below and anterior to this the pulmonary tissue is of a greyish colour; it contains several small white nodules, and the bronchi are plugged with exudate. A similar condition prevails in the anterior portion of the lower lobe. In the portion of lung removed there were numerous white nodules situated in the sub-pleural tissues.

Microscopically the glands show evidence of periadenitis. The follicles of the glands are visible, but their arrangement is obscured. The medulla is largely replaced by the newly-formed tissue. Nodules of new formation are scattered irregularly throughout the gland, and in some areas they are confluent. They consist of oval and spindle-shaped connective-tissue cells, bands of fibrous tissue, numbers of large epithelioid cells, a few giant cells with a rosette or horseshoe-shaped group of nuclei, and a few leucocytes and lymphocytes. In some of the nodules certain areas stain rather feebly, suggesting necrobiotic changes. The nodules in the lungs contained the same type of cells, but a greater amount of fibrous tissue. The middle lobe was uniformly infiltrated with the newly-formed tissue. The peri-bronchial and peri-vascular tissue presented an excessive amount of fibrous tissue. There was catarrhal bronchitis, and a certain amount of catarrhal exudation in the alveoli. (For a description of the retro-peritoneal glands see M.N. 3518—43·6 : 81·5, liver and spleen M.N. 3519—45 : 81·5.)

M.N. 3518. D.B. 4698. Oct., 1905. Dr. Hutton.

RETRO-PERITONEAL GLANDS, KIDNEYS, SUPRA-RENAL GLANDS: Hodgkin's Disease. 43·6:81·5

The specimen shows a mass of enlarged glands, which extends from the level of the pancreas, and surrounds the aorta, vena cava, and supra-renal bodies. The glands vary in size and in shape, and many of them are fused together. On section, the larger glands are dense in texture, greyish and yellowish-white in colour, but they also present translucent patches of irregular shape. The pieces of glass-rod indicate the position of the aorta, vena cava, and the deflected left ureter.

Microscopically, there is periadenitis, and the glands contain nodular areas in which there are a large amount of fibrous tissue, a large percentage of epithelioid cells, a few scattered giant cells, lymphocytes and leucocytes, and areas of necrobiosis. The blood-vessels present hyaline changes. The lymph follicles are displaced to some extent by the new-formed tissue.

The patient was a male, aged 9 years. The glands were removed from the neck and axilla in July, 1903, and January, 1904. Death occurred in October, 1905. Enlarged glands were present in the left anterior triangles, along the edge of the right sterno-mastoid, in the right axilla and in both groins. At the autopsy the left axilla was free; the spleen enlarged; the glands in the mediastinum and at the hilum of the liver were also enlarged. The retro-peritoneal glands were adherent to the vertebræ for about four inches. A narrow band of enlarged glands extended forwards on both sides and terminated in the inguinal glands. (See mediastinal glands M.N. 3517—43·4:81·5, liver and spleen M.N. 3519—45:81·5.)

THYMUS GLAND: MALIGNANT TUMOURS.

M.N. 2856. D.B. 4139. P.M.S. 340. Sept. 15, 1903. Mr. J. W. Smith.

THYMUS GLAND: Round Celled Sarcoma. 44 : 65 · 1

There is a large mass of soft new growth in front of the trachea, reaching up as high as the thyroid gland, which is slightly enlarged, but not involved in the growth. The growth extended downwards to the level of the third costal cartilage on both sides. The mass was well defined, the surface was cream-coloured and slightly lobulated at the upper part. There were several isolated lymphatic glands larger than normal. The lower margin was bifid—with sharp edges. The whole mass is flattened. The innominate veins were surrounded by the growth, but did not appear to be compressed. The trachea was distinctly narrowed at its lower part. On section the growth was found to be moderately firm, cream-coloured, with abundant capillary hæmorrhages into its substance.

Microscopical examination showed small round-celled sarcomatous structure. There were scattered fat cells amongst the tumour cells. The sectio was confined to the operation wound.

The patient, a female, aged 18, noted a swelling in the neck for 5 weeks. Dyspnœa for the last 4 days of life. Tracheotomy gave no relief, and she died the day after admission, from dyspnœa.

M.N. 3672. D.B. 4751. P.M.M. 781. Nov. 27, 1905. Dr. Harris.

THYMUS GLAND: Sarcoma. 44 : 65 · 1
12 : 65 · 1
25 : 65 · 1
83 · 3 : 65 · 1

The specimen shows the half of an enormous growth which commenced in the thymus gland. It is situated above and in front of the heart. The tumour reached as far as and invaded the thyroid gland. Behind it reached the anterior aspect of the bronchi and trachea, and below it terminated at the diaphragm, and laterally it had invaded the lungs. Its anterior border was adherent to the whole of the sternum and to the adjacent ends of the clavicles

and costal cartilages, especially on the right side. The heart, aorta and trachea are more or less embedded in its substance. The œsophagus on its anterior wall is adherent to the tumour, but is not invaded by it. The growth has on its surface a dense fibrous appearance with yellow mottling, but no signs of softening or hæmorrhage. It has invaded the lung by passing along the bronchi, and it has infiltrated the pulmonary parenchyma. It has obliterated the pericardium almost completely, and has replaced the myocardium to a considerable extent. It has also extensively invaded the diaphragm.

Microscopically the growth is a very vascular round-celled sarcoma. At the autopsy there was found some nodular enlargement of the cervical glands, but those in the abdomen, axilla and inguinal regions were normal. The thorax bulged forwards below. There was œdema of the hands and upper thoracic region. The other organs were normal, except the liver, which showed the appearance of chronic venous congestion in a peculiar patchy form.

The patient, a male, aged 36, was a carter by occupation. He began to be ill in April, 1905, but was able to work till August of that year. From that time to October he was compelled to rest, and he then noticed that his face and neck were swollen. He suffered from cough with a large amount of expectoration. At that time dyspnœa was slight, the heart sounds were regular though weak, the veins on the chest were prominent and there was venous pulsation on the right side of the neck. Subsequently dyspnœa became pronounced, and there was dysphagia. The œdema became intensified and attacks of syncope occurred. The pulse was persistently over 100, varying from 114 to 130. The patient died " within 10 minutes " of heart failure on Nov. 27, 1905. (See liver M.N. 3673—36 : 32·2.)

SPLEEN: CONGENITAL MALFORMATIONS.

M.N. 3603. D.B. 4646. P.M.M. 733. July 15, 1905.

SPLEEN: Malformation Hæmorrhage. 45 : 12
45 : 33

The organ is represented by a mass of markedly lobulated tissue, resembling a closely-paeked group of cherries, and the lobules are of soft consistence. A short distance from the lowest lobule is an isolated nodule, similar in size and character to those deseribed. This is evidently a supernumerary spleen, and scattered through the omentum shown in this specimen, are a large number of very small, rounded nodules, mostly of the size of grape seed, which have the colour and consistence of spleen tissue. The lobulated spleen lies against a flattened oval mass of firm consistence. On section this shows a purplish eolour. It has a well-defined fibrous capsule, which was firmly adherent by fibrous bands to the under surface of the diaphragm. It is a spleniculus in which extensive hæmorrhage has taken plaee. It has the appearanee of a dirty, purplish, caseous tissue of fairly homogeneous consistenee.

Microscopic examination of the mass shows an almost complete absence of the normal splenic structure; there is a granular necrotic tissue studded with masses of blood pigment. The only structure that remains of the splenic tissue is the trabecular strands.

The patient was a man, aged 20, who was brought in dead to the M.R.I. At the autopsy was found a horseshoe kidney. Death was due to atheroma of the eoronary arteries. (See heart M.N. 3551—14·4 : 55·2, and kidney M.N. 3555—51 : 12.)

SPLEEN: MECHANICAL LESIONS.

M.N. 2027. D.B. 1174. P.M.S. 1887, No. 236. Nov. 6, 1890. Mr. WHITEHEAD.

SPLEEN: Rupture from Trauma. 45:21

The spleen weighed 5 ozs. The lower border presents a rupture extending upwards $1\frac{3}{4}$ ins. on the posterior surface and $1\frac{1}{2}$ ins. on the anterior surface. The sides of the rupture were loosely united by blood clot, and large masses of clot were found surrounding the spleen. The ribs on the left side were extensively fractured. (See kidney M.N. 9—51:12.)

SPLEEN: CIRCULATORY DISTURBANCES.

M.N. 2790. D.B. 4309. Mareh 15, 1904. Dr. Dixon Mann.

SPLEEN: Infarct. 45 : 36
45 : 53 · 1

The specimen shows a spleen much enlarged, with the capsule wrinkled and thickened. A band (about $1\frac{1}{2}$ inches broad) of fibrinous exudate extends across the centre of the external surface. On section the follicular areas appear enlarged, and two infarcts are present. The smaller one, which eontains several anæmic areas, is situated at the upper pole. The larger occupies a zone about 2 inches in thickness across the middle of the spleen. The greater portion of the infarcted area is anæmic. Around the edge there is a distinctly hæmorrhagic zone and several small patches are seen in the infarct, which are of the colour of the splenic tissue itself. Several of the vessels are thrombosed.

M.N. 2795. D.B. 4310. Feb. 11, 1904. Dr. Dixon Mann.

SPLEEN: Infarct and Enlargement of Follicles. 45 : 36 · 1
42 (45) : 62

The specimen shows the spleen enlarged, with the capsule slightly thickened over some areas. On section the organ shows marked congestion, and enlarged follieles which stand out prominently as irregular white patches. At the upper portion there is a white infarct, roughly oval in shape and measuring about 2×1 inehes. It occupies the outer two-thirds of the upper end of the spleen, and extends out to the capsule. A distinctly hyperæmic zone surrounds it internally, and passing through this zone at about the centre of the infarcted area is a thrombosed vessel whose main branches can be traced as they pass into the anæmic mass.

Microseopically the congestion is very extensive. The follicles are enlarged, and there is general hyperplasia of the splenic tissues.

The patient was 22 years of age, and gave 7 weeks' history of rheumatism. Ulcerative endocarditis supervened and was the cause of death.

M.N. 2841. D.B. 4098. P.M.M. 421. May 28, 1903. Dr. Graham Steell.

SPLEEN: Infarction. 45 : 36 · 1

The spleen is normal in size and weight. The capsule is diffusely thickened, opaque and grey. A well-marked horizontal puckering was seen about the middle. On section the spleen cuts firmly, and at the base of the puckering is a small wedge-shaped area of slate-coloured fibrous tissue.

Microscopic examination showed the presence of typical organised anæmic infarctions consisting of an irregularly-shaped patch of fibrous tissue. The tissue contains a considerable amount of pigment derived from hæmoglobin. The spleen was from a case of chronic mitral endocarditis with stenosis and cardiac thrombus.

The patient was a female, aged 40. (See heart M.N. 2840—12 : 34·1, and kidney M.N. 2974—51 : 36·1.)

M.N. 3294B. D.B. 4278. P.M.M. 672. Jan. 2, 1905. Dr. Dreschfeld.

SPLEEN: Anæmic Infarct. 45 : 36 · 1

The spleen was moderately enlarged (weight 15 oz.). The contour was normal except over an area equal to that of a shilling near the upper pole on the costal aspect. This area is markedly depressed, is of a pale yellow colour, and feels firm. On section it is found to be a firm, well-defined quadrilateral mass of homogeneous appearance. There is slight thickening of fibrous tissue at the surface. The rest of the spleen was deep purple and moderately firm. The organ is from a case of acute ulcerative endocarditis. (See heart M.N. 2960—13·2 : 55·6, and kidney M.N. 3294B.—51 : 52·1.)

M.N. 3461. D.B. 4697. Oct. 9th, 1905. Dr. Ashby.

SPLEEN: Infarction. 45 : 36
45 (42) : 62
45 : 32 · 1

The spleen is enlarged. The cut surface presents an anæmic infaret with a surrounding zone of congestion. The area of infarction is irregular in shape. At one point, where the infarct has been cut obliquely, there is seen an artery lying in an area of necrosing tissue. The follicles are increased in size, and

stand out as prominent greyish-white areas on the red background. The organ is congested. The capsule presents localised inflammatory changes, and the necrosing areas are readily distinguished underneath it. The organ weighed 9 ozs.

The specimen was obtained from a child, aged 12 years, who died from ulcerative endocarditis. (See middle cerebral artery M.N. 3460—14·3 : 35·2.)

M.N. 3494. D.B. 4635B. P.M.M. 727. July 3, 1905. Dr. Dreschfeld.

SPLEEN : Anæmic Necrosis from Infarction. 45 : 36 · 1

The spleen is somewhat enlarged, and weighs 7 oz. It is of normal shape and consistency. Along the anterior border is an area of firm anæmic necrosis, well-defined, somewhat pigmented, but not surrounded by a red zone. It is $3\frac{1}{2}$ inches long, and its maximum breadth is $\frac{3}{4}$ inch. The rest of the spleen is firm and deeply congested.

The patient was a female, aged 21, the subject of ulcerative colitis. No sign of atheroma of the splenic or other artery was found, and no thrombi were present in the heart. (See large intestine M.N. 3377—35·4 : 55·3, heart M.N. 3493—12 : 41, and adrenal M.N. 3378—47 : 33.)

M.N. 3658. D.B. 4710. P.M.M. 761. Oct. 20, 1905. Dr. Graham Steell.

SPLEEN : Infarct, Acute Hyperæmia. 45 : 36
45 : 32 · 1

The spleen is much enlarged, and weighed 23 oz. Its surface is normal, and the pulp is of a pale mottled purplish-red colour. It was tough and somewhat dry on section. Near the lower end is a large recent yellow infarct, surrounded by a zone of congestion. The infarct projected on the surface and felt firm.

On microscopic examination there is much congestion and also a moderate amount of overgrowth of fibrous tissue in the spleen. The coats of the arteries show well-marked hyaline degeneration. (For clinical history see heart M.N. 3656—13·1 : 55·6, also see lung 3657—25 : 54·2.)

SPLEEN: RETROGRESSIVE DISORDERS.

M.N. 33. D.B. 1611. Dr. Bevan Rake.

SPLEEN and KIDNEY: Waxy Degeneration due to Leprosy. 45:42·5
51:42·5

The spleen is not enlarged, but presents well-marked lardaceous infiltration of the Malpighian corpuscles ("sago" spleen). The kidney is contracted from interstitial nephritis, but shows in the cortex a faint mottling due to lardaceous infiltration.

SPLEEN: INFLAMMATORY LESIONS.

M.N. 2034. D.B. 253. March 4, 1886. Dr. Harris.

SPLEEN: From a case of Hypertrophic Cirrhosis of the Liver. 45 : 51

The spleen is uniformly enlarged, and is comparatively soft in consistency. There is a slight amount of chronic perisplenitis at one point in the capsule. The hypertrophic cirrhosis of the liver was due to obstruction of the bile ducts by a biliary calculus.

M.N. 2584. D.B. 2065. P.M.M. 1893, No. 102. June 12, 1893.
Dr. Dreschfeld.

SPLEEN: From a case of Hypertrophic (Biliary) Cirrhosis of the Liver. 45 : 51

The spleen weighed 3 lbs. 2 oz. On section the organ was of a brownish-yellow to red colour. There is some evidence of perisplenitis. The liver was greatly enlarged, and there was marked jaundice. The urine contained bile and albumin, and the kidneys were enlarged and mottled. The case showed further general enlargement of the abdominal lymphatic glands and marked wasting of the muscles.

M.N. 3350. D.B. 4387. P.M.M. 707. May 6, 1905. Dr. Dreschfeld.

SPLEEN: Perisplenitis. 45 : 53 · 1

The organ is somewhat enlarged, and weighed 9 oz. The capsule is markedly thickened and opaque, giving the organ a leathery feeling. Its pulp is soft, somewhat dark-red, and on section showed marked retraction. (See liver M.N. 3350A—36 : 53, and kidney M.N. 3349—51 : 67·1.)

M.N. 3664. D.B. 4723. P.M.M. 769. Nov. 3, 1905. Dr. Harris.

SPLEEN: Fibroid Enlargement. 45 : 53

The spleen is enlarged, and weighed 11 oz. Its shape is normal, and it was flabby, but tough. The cut surface was dry, of a pale red colour and homogeneous appearance.

Microscopically the trabeculæ and blood-vessels are thickened and hyaline. The Malpighian bodies are small and the pulp shows marked fibrosis. (See retroperitoneal glands M.N. 3663—43·5 : 44·2.)

SPLEEN: SPECIFIC INFLAMMATIONS.

M.N. 281. D.B. 1713. Dr. Ashby.

SPLEEN: Tuberculosis. 45 : 56 · 1

The spleen is much enlarged. Its surface is markedly nodular, and on section it is seen to be studded with innumerable areas of caseation, many of which have undergone central softening. Hardly any normal splenic tissue remains.

M.N. 2035. Dr. Ashby.

SPLEEN: Tuberculosis. 45 : 56 · 2

The capsule shows a multitude of small miliary tubercles which project like pin-points above the surface. The substance of the spleen also is studded with innumerable miliary tubercles, varying considerably in size. In some cases the area is formed by the confluence of two or three separate foci. The texture of these areas has apparently been very soft, as some of them have been torn in the process of making the section.

The patient was a child, aged 9.

M.N. 2036. Mr. Southam.

SPLEEN: Miliary Tuberculosis. 45 : 56 · 2
43 · 5 : 56 · 1
43 · 5 : 44 · 2

The capsule is studded over with miliary tubercles, of very considerable size as a rule. In the hilum of the organ are some enlarged glands, one of which has been cut, and shows a caseous centre. Surrounding these glands, and extending over the posterior surface of the spleen, there is a considerable amount of thickening due to the deposition of white fibrous tissue (perisplenitis).

M.N. 2037. Dr. Ashby.

SPLEEN: Tuberculosis. 45 : 56 · 2

The spleen has been enormously enlarged. The capsule is thickened, and round flat projections due to the formation of tuberculous foci are seen over the whole surface. The cut surface shows that the substance of the spleen is also very thickly studded with small, round, caseous tuberculous foci. A good many of these foci show central softening of their contents.

The patient was a child.

M.N. 3327. D.B. 1025. P.M.S. 1887, No. 174. Feb. 8, 1890. Mr. Jones.

SPLEEN: Enlarged Spleen of Malaria. 45 : 57 · 2

The specimen consists of the spleen, which is very much enlarged, weighing 32 oz. The tissue of the spleen was firm, and the capsule was somewhat thickened.

The patient, a man of 27, had his 6th cervical vertebra fractured at a football match. He died 12 days after admission to the Hospital from bronchopneumonia.

M.N. 3348. D.B. 4565. P.M.S. 448. May 25, 1905. Mr. Collier.

SPLEEN: Tuberculosis. Caseation. 45 : 56 · 1
45 : 44 · 2

The spleen was somewhat enlarged, and weighed $10\frac{1}{2}$ oz. Its capsule is slightly thickened and opaque in patches, and there were firm fibrous adhesions between it and the diaphragm. The spleen is of firm consistence, and near its lower pole, projecting on the costal surface, is a small well-defined pale-yellow nodule of soft friable substance, a solitary tubercle. This was the only sign of caseous tuberculosis found at the autopsy. The peritoneum was the seat of acute miliary tuberculosis. The lungs were normal except for a small area of opacity and fibrous thickening confined to the pleura at the apex of the right lung. Well-marked multilobular cirrhosis was found in the liver. (See peritoneum M.N. 3355—38 : 56·2, and liver M.N. 3374—36 : 53.)

M.N. 3464. D.B. 4308. Feb. 6, 1905. Dr. Ashby.

SPLEEN, LIVER, KIDNEY: Miliary Tuberculosis. Fatty Degeneration of Liver. 45 : 56 · 2, 36 : 42 · 3, 51 : 42 · 1

The spleen showed numerous miliary nodules. The liver and kidney are both extremely pale in colour.

Under the microscope the liver is exceedingly fatty, and presents numerous tuberculous foci. The epithelial cells of the renal tubules show cloudy swelling.

These specimens were obtained from a child, aged 5 months, who had been bottle-fed from birth. There was a history of 5 weeks' illness, and death occurred from meningitis. The lungs were studded with miliary tubercles, and the bronchial glands were slightly swollen. The intestines were not ulcerated, but the mesenteric glands were very much enlarged and matted together, and on microscopic examination they showed the typical tuberculous structure. (See bronchial glands M.N. 3475—43·4 : 56·1.)

M.N. 3491. D.B. 4687. July 30, 1905. Dr. Ashby.

SPLEEN, KIDNEY: Actinomycosis. 45 : 56 · 4, 51 : 56 · 4

The spleen presents a large granulomatous area, which contains numerous more or less confluent patches of consolidation and caseation. There is a certain amount of yellow pigmentation. The necrotic areas are irregular in size and shape, and are surrounded by a lighter-coloured zone. At one point the granulomatous mass is continuous with a similar structure which covers the capsule for some distance. The extra-capsular mass presents a shreddy appearance. Underneath the capsule, at the upper part of the specimen there are several nodules which vary considerably in size. The glands at the hilum are increased in size, and contain several nodules. The connective-tissue is increased, and nodules are visible there also. At the upper end of the left kidney there are two nodules similar to those in the spleen. The capsule of the kidney is thickened. The cortex and medulla present normal relations. There is some mottling due to hyperæmia. The parenchyma is "cloudy" in appearance, and the general appearance is suggestive of early amyloid changes.

Microscopically the spleen contains nodules which at their centre show the actinomyces (ray fungus). Around the centre is a broad zone of cellular

reaction, and this in turn is surrounded by an area of fibrous tissue. The splenic pulp is hyperæmic. There are numerous areas of necrobiosis and necrosis. The capsule is thickened.

The patient was a child, aged 7 years. There is a history of eating large quantities of corn plucked from the fields. Twelve months before death there were night-sweats, emaciation and pain in the left side of the chest. Three months later a swelling, about 3 inches in diameter, appeared below the inferior angle of the left scapula. It was tender, solid and adherent to the ribs. The overlying skin was movable and healthy. When incised it was found to be solid and fibrous, with a small bead of pus in the centre. A few days afterwards metastatic swellings appeared on the neck, trunk and limbs. Later the skin covering the swelling became riddled with sinuses which discharged a thick, greenish pus. In the pus there were large numbers of small white bodies, which on microscopical examination were proved to contain the actinomyces. After several months of hectic fever the child gradually wasted and died. For the last two weeks of life the spleen was enlarged and tender. At the autopsy there was a large encapsuled collection of greenish, shreddy pus on the upper surface of the spleen; the diaphragm at this point contained fistulous tracks lined by nodules and communicating with the lower part of the pleural cavity, and with the granulomatous area on the back. (See lung M.N. 3490—25 : 56·4.)

M.N. 3495. D.B. 4336. Feb. 27, 1905. Dr. Ashby.

SPLEEN: Miliary Tuberculosis. 45 : 56 · 2

The organ contains a large number of irregularly-shaped white areas of caseous necrosis. Around some of the caseous patches there is a zone of congestion. The larger nodules are apparently formed by the confluence of smaller areas.

The patient was a child, aged 7 years. (For a description of other specimens from this case see lung M.N. 3476—25 : 56·2, and liver and kidney M.N. 3487—36 : 56·2.)

SPLEEN: BENIGN TUMOURS.

M.N. 3423. D.B. 3564. Feb. 12, 1897. Mr. Richmond.

SPLEEN: Fibroma. 45 : 63 · 2

The spleen is enormously increased in size, and is very irregularly lobulated. A thick fibrous tumour mass of white colour encapsuled a considerable part of the spleen on its upper and posterior aspects. The white tumour mass is firm and fibrous in appearance; it is clearly marked off from the red splenic tissue by its colour; but the two structures are intimately united with each other. The splenic tissue on its cut surface is seen to be divided up into rounded lobules of various sizes, somewhat after the manner of a cirrhosed liver. Its lobulation is especially noticed in the portion of splenic tissue adjacent to the tumour.

Microscopically the mass consists of fibrous tissue with very few nuclei. There is some dark-brown granular pigment in the spaces of the tissue.

SPLEEN: MALIGNANT TUMOURS.

M.N. 3313. D.B. 4217. P.M.M. 582. May 17, 1904. Dr. Dreschfeld.

SPLEEN: Secondary Endothelioma. 45 : 66 · 5

The spleen was slightly enlarged, and weighed 8 oz. It was of normal colour, and was very soft. At the hilum is a mass of moderately firm white new growth continuous with and having the same appearance as, the mass in the gastro-splenic and gastro-colic omentum. It has invaded the splenic tissue to a depth of an inch. The spreading margin is sinuous and well-defined. The primary growth was in the omentum.

The microscopic appearance of the growth in the spleen is very like that of a carcinoma. In the older areas there is a large amount of fibrous matrix, in the meshes of which are groups of cells with the appearance of epithelium. In the growing and more recent parts larger areas of these cells may be seen with strands of necrosed spleen tissue lying between them. The endotheliomatous tissue shows the distinct tendency to tubular formation which is observed in some of the tumours of this class. (See omentum M.N. 3295—38·1 : 66·5.)

SPLEEN: GENERAL NUTRITIONAL DISEASES.

M.N. 1631B. D.B. 1822A. P.M.M. 1893, No. 5. Nov. 8, 1892. Dr. Harris.

SPLEEN: Lardaceous Degeneration in a case of Hodgkin's Disease. 45:81·5 45:42·5

The spleen is enlarged, and weighed 18 oz. The contour is normal, and on section the tissue shows a few rounded ill-defined nodules, about the size of small cherries. The Malpighian bodies present well-marked lardaceous change. (For a description of the lymph glands of this case see retro-peritoneal lymph glands M.N. 1631c—43·6 : 81·5.)

M.N. 2030.

SPLEEN: Leucocythæmia, Spleno-Medullary. 45:81·4

The specimen presents one-half of the spleen. The organ has been enormously enlarged; the capsule is not thickned, and has the appearance of being somewhat stretched. The cut surface shows that the enlargement consists of an uniform increase of the splenic tissue. There are no infarcts.

M.N. 2032. Dr. Dreschfeld.

SPLEEN: Leucocythæmia. 45:81·4

The preparation shows half of the spleen. The organ is enlarged, the surface smooth, and the capsule thickened. It presents a uniform pale colour. The hilum is well marked, and the edge of the section is sharp and well-defined. On careful examination the surface shows numerous white spots (Malpighian corpuscles).

The patient was a girl, æt. 10. The lymphatic glands and the medulla of the bones were not affected. The blood showed 1 in 10 leucocytes, the leucocytes being large. The liver was enlarged, but showed no leukæmic nodules. During life the patient suffered from repeated profuse attacks of epistaxis, and before death general anæmia had been established.

M.N. 3302. D.B. 4136. P.M.M. 460. Sept. 5, 1903. Dr. Dreschfeld.

SPLEEN: Spleno-Medullary Leucocythæmia. 45 : 81 · 4

The spleen is very large and heavy, and weighed 47 oz. The capsule is diffusely, though irregularly thickened, and is white and opaque. The consistency is firm. On section the colour was a mottled purplish-brown. The Malpighian bodies are prominent, well-defined and pale. (The large lighter-coloured patches are artefacts due to imperfect preservation.)

The patient was a male, aged 52. He was ill for 2 years. (See liver M.N. 3303—36 : 81·4.)

M.N. 3483. D.B. 4268. Dec. 13, 1904. Dr. Dixon Mann.

SPLEEN: Hodgkin's Disease. 45 : 81 · 5

The capsule of the organ presents marked fibrous thickening. Otherwise it is smooth, and through it are visible numerous yellowish-white, irregularly-shaped areas, which vary in size from that of a pin-head to that of a large pea. On section there are visible, lying in the hyperæmic tissue, yellowish-white streaks and patches which are uniformly distributed throughout the organ. The perivascular fibrous tissue is considerably increased. The appearances are those typical for the so-called "almond" or "hard-bake" spleen. The organ weighed 28 oz., and was obtained from a male, aged 16 years.

Microscopically there is very extensive hyperplasia of the interstitial tissues. The fibrous trabeculæ are almost entirely replaced by dense masses of proliferating tissue, which surround the blood-vessels and form a thick network, in the meshes of which lies the splenic pulp. There is marked hyperæmia and much pigmentation. The pulp is composed of the usual cellular elements, but the lymphocytes are much increased. A few eosinophile cells are present; also cells with large nuclei, poor in chromatin and showing in their protoplasm granules staining with basic dyes. Giant cells are fairly numerous. Throughout the lymphoid tissues, as well as the other structures of the organ, spindle-shaped and oval connective-tissue cells are present. There is no evidence of degeneration, save slight hyaline changes in the arterial walls. (For a description of other specimens from this case see mediastinal glands M.N. 3842—43·4 : 81·5, retro-peritoneal glands M.N. 3485—43·6 : 81·5, and liver M.N. 3484—36 : 81·5.)

M.N. 3519. D.B. 4698. Oct., 1905. Dr. Hutton.

SPLEEN, LIVER: Hodgkin's Disease, Lymphadenoma. 45 : 81 · 5
36 : 81 · 5

The spleen is enlarged, and presents numerous protuberances. The capsule is smooth, but thickened; and through it many grey or yellowish-white irregularly-shaped and variously-sized areas are visible. On section the nodules are seen scattered throughout the entire organ, although certain areas exhibit more nodules than others. The nodules vary in size and shape, and some of them present small areas of necrosing tissue, and there are numerous patches of hæmorrhage. The liver shows a number of sub-capsular grey and yellowish-white nodules which project above the adjacent hepatic tissue. Through the capsule the parenchyma appears mottled and streaked. The cut surface is alternately pale and mottled, and several well-defined nodules are visible.

Microscopical examination:—The spleen contains numerous nodules of tissue, which stand out clearly from the splenic pulp. These nodules are irregularly distributed, and in some places they have become confluent. They are composed of proliferating oval and spindle-shaped connective-tissue cells, a few lymphocytes and polymorphonuclear leucocytes, and a high percentage of multinucleated large cells. In some of these the nuclei are arranged in rosette form. In others the arrangement is that of a horse-shoe. None of them show any similarity to the giant cells associated with tuberculous and syphilitic foci; they resemble more the giant cells of bone-marrow. The endothelioid cells are large, and are present in excessive numbers. Their nuclei are round or oval, and stain electively. In some of the nuclei a round body is present which stains deeply with basic dyes. In others the nucleus is represented by an irregular knob-shaped mass of material which stains deeply with hæmatoxylin, while small granules of the same substance are visible in the cell protoplasm. In the medium-sized nodules a certain amount of fibrous tissue is present. The largest nodules are fibrous at the periphery, while at their centre the tissue stains feebly, and suggests the onset of necrobiosis. At the periphery of many of the masses granules of pigment are present, and the adjacent splenic tissue is excessively hyperæmic. The newly-formed tissue is well supplied with vessels. The lymph follicles of the organ are clearly seen, and their centres are active. The remaining splenic pulp is hyperæmic, but does not otherwise present abnormal characters. The trabeculæ are slightly thicker than normal, but show early hyaline changes. Hyaline degeneration is also present in some of the

larger blood-vessels. In the liver the nodules occupy the periportal tissues, and contain the same types of cells and fibrous tissue. The lobules are not invaded, and the new formation is much more nodular in arrangement than is usual in these cases. In the larger nodules the structures at the centre of the nodule stain feebly. (For a description of the mediastinal glands see M.N. 3517—43·4 : 81·5, and retro-peritoneal glands M.N. 3518—43·6 : 81·5.)

M.N. 3601. D.B. 4629. P.M.M. 722. June 27, 1905. Dr. Harris.

SPLEEN: Spleno-Medullary Leukæmia. 45 : 81 · 4

The organ is enormously enlarged, and the notches on its surface are much exaggerated. It lay across the front of the abdomen, reaching down to the pelvis, and hiding all the viscera except the liver. The capsule at the upper pole was slightly thickened and opaque in patches. The whole organ is of firm consistence throughout. It weighed 150 oz. The cut surface was very homogeneous, of a pale brick-red colour, and shows no visible evidence of enlarged Malpighian bodies or of increased stroma. There were found about 20 white infarcts surrounded by faint purple zones of congestion; these are mostly at the surface, but do not project, and none are larger than a cherry.

The patient was a female, aged 45. The illness lasted for almost 2 years. She first lost flesh; then the enlarged spleen, which was painful and mobile, attracted her notice. Anæmia was very marked. At the autopsy were found also pulmonary tuberculosis with cavitation, and chronic mitral endocarditis with stenosis.

M.N. 3613. D.B. 3838. P.M.M. 111. Jan. 21, 1901. Dr. Dreschfeld.

SPLEEN: Leucocythæmia. 45 : 81 · 4

The organ is enormously enlarged and elongated. It weighed 70 oz., and was of firm consistence.

The patient was a female, aged 35.

M.N. 3623. D.B. 4632. P.M.M. 724. June 29, 1905. Dr. Judson Bury.

SPLEEN: Spleno-Medullary Leucocythæmia. 45 : 81 · 4

The specimen consists in one-half of a spleen, which was enormously enlarged, and weighed 101 oz. The normal contour is retained. The capsule shows well-marked, but irregularly diffused thickening and opacity, especially on the diaphragmatic aspect. The whole organ is moderately firm. The cut surface has a homogeneous brick-red colour. There are no signs of overgrowth of stroma or enlarged Malpighian bodies.

The microscopic examination shows that the tissue of the spleen has been replaced by a very uniform cellular tissue with a large amount of inter-cellular matrix in certain areas. The cells have darkly-staining and rather irregular nuclei, and a moderate amount of protoplasm.

The patient was a man, aged 43. He was admitted in consequence of ascites, which had troubled him for 15 months, and when it subsided the liver and spleen were found enlarged. The temperature became irregular. He died 2 months after admission. (See lung M.N. 3624—25 : 56·1, and peritoneum M.N. 3625—38·1 : 56·2.)

M.N. 3719. D.B. 4847. Feb. 19, 1906. Dr. Heywood.

SPLEEN: Hodgkin's Disease. 45 : 81 · 5

The spleen was much enlarged and the capsule smooth. It was firm and of normal contour. The cut surface is studded with small white patches of about the size of millet-seed. These when examined microscopically were found to be Malpighian bodies enlarged by an overgrowth of fibrous tissue. There were few giant cells, and in some areas the new tissue was undergoing necrosis. (See liver M.N. 3718—36 : 81·5.)

THYROID GLAND: HYPERTROPHY AND BRONCHOCELE.

M.N. 1805. D.B. 2860.

THYROID: Hypertrophy. 46 : 62 (67 · 1)

The specimen consists in the larynx and upper part of the trachea. In front of the trachea a large thyroid gland is situated. It is roughly globular in form. A smooth-walled cyst, occupying a considerable part of the right lobe, has been laid open.

Microscopic section shows numbers of gland-like spaces in which the cellular lining of the wall has been to a large extent thrown off, and mixed with the colloid secretion with which the spaces are dilated. The overgrowth of the thyroid is due to hypertrophy.

M.N. 1806. D.B. 611. P.M.M. 1886, No. 127. Dec., 1887. Dr. Morgan.

THYROID GLAND: Bronchocele. 46 : 62

The specimen shows the larynx and trachea, with the thyroid gland very much enlarged. The tumour is a rounded mass, for the most part solid, but showing a cystic cavity in the centre of the right lobe.

Clinical notes:—The patient was a woman, aged 48. She was admitted to the Hospital Nov. 28, 1887, and died Dec. 6. There was distinct anasarca of the lower extremities. There was no prominence of the eyeballs. The pupils were equal. The ears and lips were blue. The heart weighed $13\frac{1}{4}$ oz The valves were healthy. There was fluid in the pericardium, pleural cavity and abdomen.

Microscopic examination shows that the tumour is an adenomatous hypertrophy of the thyroid gland. There is little evidence of the production of colloid matter in certain parts of the glandular tissue.

M.N. 1807. D.B. 278. March 25, 1886. Mr. Wright.

THYROID GLAND: Bronchocele. 46 : 62
23 : 26

The three lobes of the thyroid are all markedly enlarged, and the sterno-thyroid muscle covering them is hypertrophied. An incision has been made in the middle lobe, and in the middle line of the trachea, for a tracheotomy tube. The trachea at the level of the incision shows evidence of very marked atrophy from compression. The mucous membrane round the glottis is markedly thickened.

M.N. 1808.

THYROID GLAND: Bronchocele. 46 : 62
23 : 26

The specimen shows the larynx, upper portion of the trachea, commencement of the œsophagus, and left lobe of the thyroid (enormously enlarged). The thyroid tumour is a rounded, oblong mass, somewhat lobulated, measuring about 5 inches in vertical diameter, and $2\frac{1}{2}$ transversely at its broadest point. The tumour has pressed upon the trachea, and caused an angular distortion with atrophy of the tracheal wall and narrowing of the lumen.

The patient died from asphyxia.

M.N. 2844. D.B. 4107. P.M.S. 323. June 8, 1903. Mr. Thorburn.

THYROID GLAND: Hyperplasia of the Thyroid and a Supernumerary Lobe on the Right Side with a Hæmorrhagic Cyst. 46 : 62
46 : 13
46 : 67 · 2

The thyroid gland is slightly enlarged throughout. The left lobe shows at its lowest point a unilocular cyst, having firm, somewhat thickened, white walls, and containing chocolate-coloured granular contents. The cyst is superficial in its lower half, and is well-defined. The rest of the lobe is normal. The right lobe is enlarged, and consists of two lobules. The upper is apparently disconnected from the lower, which is the normal one. Section shows a firm, white, well-defined nodule, the size of a cherry, occupying the bulk of the upper lobe. The rest of this lobe is of more homogeneous appearance than normal. A similar nodule was found in the apex of the lower lobe. The rest of this lobe is normal. These nodules are modified fibrinous masses. Adjacent to this is tissue composed of thyroid acini.

The patient, a female, aged 50, died from pyonephrosis.

M.N. 2845. D.B. 4112. P.M.M. 431. June 24, 1903. Dr. Dreschfeld.

THYROID GLAND: Simple Hypertrophy. 46 : 62

The thyroid gland is enlarged throughout. The contour is retained, and its colour and consistence are normal. On section the cystic arrangement is just visible. The capsule is normal.

Microscopic section:—The acini are enlarged slightly. The contents are colloid and homogeneous. The lining epithelial cells are flattened. The interstitial tissue is scanty, but highly cellular in a few places. The trachea is normal.

The patient, a female, aged 44, died from carcinoma of the pylorus with stenosis. There were no secondary nodules.

M.N. 2988. Sept. 10, 1902. Mr. Platt.

THYROID GLAND: Bronchocele. 46 : 62 (67 · 1)

The specimen shows an encapsuled cystic adenoma of the thyroid gland enucleated by operation. Two large cysts filled with colloid material can be seen, and several smaller ones.

The patient was a female, aged 23 years. The enlargement was gradual and of $1\frac{1}{2}$ years' duration.

M.N. 2997. Mr. Thorburn.

THYROID GLAND: Bronchocele. 46 : 62 (67 · 1)

The specimen is a large cystic adenoma of the thyroid gland. The lobe is for the greater part converted into a single cyst. A section of the rest of the lobe shows cysts of varying sizes, into some of which hæmorrhage has occurred, causing discoloration of the colloid contents.

The patient was a female, aged 39 years, with a history of gradual enlargement of the gland for 18 years, with dyspnœa after exertion and slight dysphagia. The swelling had especially enlarged during her four pregnancies. The enlarged gland extended widely beneath the sterno-mastoid muscles and sternum. At the operation (Jan. 25, 1902) a large mass was first enucleated from the right lobe, and then the whole lobe was removed. Recurrent hæmorrhage followed, necessitating re-opening the wound a few hours later. Subsequent recovery was uneventful.

M.N. 3003. Mr. Platt.

THYROID: Bronchocele. 46 : 62

The specimen shows a portion of an enlarged thyroid. The mass has a well-defined capsule, and presents on its cut surface an essentially cystic structure. The greater number of the cysts contain a brownish-yellow colloid material.

The patient was a woman, aged 44 years. The duration of the growth was uncertain. The enlargement was encapsuled, and was enucleated from the substance of the thyroid gland. The operation was performed Nov. 11, 1901.

M.N. 3042. July 22, 1902. Mr. Platt.

THYROID: Bronchocele. 46 : 62

The specimen shows a portion of an enlarged thyroid gland. The mass is very markedly lobulated, and has a fairly uniform brownish-yellow colour. The cut surface shows that it is composed of innumerable cysts, the majority of which are about the size of a pin's head, while a few of them are distinctly larger. They all contain a brownish-yellow colloid material.

The patient was a girl, aged 18 years, with a history of a year's growth. The operation was performed July 22, 1902.

M.N. 3068. Mr. Wright.

THYROID GLAND: Bronchocele. 46 : 62

The specimen is part of an enlarged thyroid gland removed by operation. Sections have been made into the tumour to show its structure. The cut surfaces show numerous cysts of varying sizes, separated by fibrous partitions. In the cysts can be seen homogeneous colloid material, which in some cases is discoloured by hæmorrhages.

M.N. 3085. Nov. 13, 1902. Mr. Platt.

THYROID GLAND: Bronchocele. 46 : 62 (67 · 1)

The specimen is part of an enlarged thyroid gland removed by operation. On its cut surface can be seen innumerable small cysts filled mostly with colloid material, which has the characteristic brownish translucent appearance. The tumour has a very definite capsule.

The patient was a woman, aged 64 years. There was a history of 10 years' growth. The lateral lobe and isthmus of the thyroid gland were removed Nov. 13, 1902.

M.N. 3086. Mr. Wright.

THYROID GLAND: Bronchocele. 46 : 62

The specimen shows a portion of the left lateral lobe of an enlarged thyroid. The mass is slightly lobulated, and has the variegated colour characteristic of this formation. On the cut surface it is seen that the tissue is composed of innumerable cysts arranged in lobules, and containing colloid matter variously coloured.

The patient was a woman, aged 27 years. There was a 12 years' history of enlargement. Growth had been more rapid during pregnancy 2 years previously, and caused dyspnœa and slight dysphagia. The whole of the left lobe was removed Nov. 17, 1902.

M.N. 3173. Mr. Platt.

THYROID: Bronchocele. 46 : 62
46 : 33
46 : 42 · 9

The specimen consists of one-half of a mass removed from the thyroid gland. It is surrounded by a well-defined dense capsule of fibrous tissue, which at its lower part shows a number of white areas of calcification. The substance of the mass has undergone extensive necrosis, probably due to the great amount of hæmorrhage which has taken place. Throughout the mass, however, small portions of colloid material can still be made out.

Microscopically the specimen shows very large dilated acini containing

colloid material, and lined by cubical epithelium. Some areas of the matrix are in a very hyaline condition.

The patient was a girl, aged 20 years. The thyroid gland had been enlarged since she was 7 years of age, but growth had been more rapid during the last 2 years, and had caused huskiness of the voice and attacks of dyspnœa at night. On March 11, 1905, the right lobe and isthmus of the thyroid were removed. Recovery was uneventful.

M.N. 3451.

THYROID GLAND: Bronchocele. 46 : 62

The organ is a rounded mass with fairly smooth capsule. On the cut surface it may be seen that the tissue contains colloid material of brownish-yellow appearance.

The microscopic section shows that the tissue consists of enlarged acini of thyroid tissue, filled with colloid substance. The inter-acinous tissue is in many parts hyaline, containing hardly any cells and staining deeply with eosin.

M.N. 3559. Mr. Platt.

THYROID GLAND: Bronchocele. 46 : 62

The specimen consists of one lobe of a very large hypertrophied thyroid gland. The capsule is very thick, but through it the varied colours of the cystic contents can still be seen. On the cut surface the glandular tissue is seen to be somewhat congested, and to be occupied by alveoli, whose cavities are much dilated by the accumulation of colloid secretion. In several instances the colloid material is discoloured by hæmorrhage.

M.N. 3739A. D.B. 4815. Jan. 31, 1906. Mr. Platt.

THYROID GLAND: Bronchocele. 46 : 62 (64 · 7)

The enlarged thyroid gland was removed in pieces, and these have been massed together in the specimen. The tissue has the characteristic brownish-pink appearance. Some of the cysts are partially collapsed.

THYROID GLAND: MALIGNANT TUMOURS.

M.N. 3246. D.B. 4409. Mr. Thorburn.

THYROID: Small Round-celled Sarcoma. 46 : 65 · 1

The tumour forms an irregularly-rounded mass. On the cut surface it is seen that the texture is that of a soft friable cellular tissue of a sarcomatous type.

Microscopic examination shows that the tumour is a small round-celled sarcoma.

The patient was a man, aged 52 years, who had suffered from a bronchocele for 14 years. During the last year, however, the enlargement had been very rapid, doubling itself in size, and had given rise to dyspnœa. The growth involved both lateral lobes, and the isthmus of the thyroid. On Nov. 4, 1904, the left lateral lobe and the isthmus of the gland were removed. The recovery was uneventful.

M.N. 3261. D.B. 3586. P.M.S. 1896, No. 108. Nov. 11, 1897. Mr. Thorburn.

THYROID: Sarcoma. 46 : 65 · 3

The thyroid is the seat of a very large growth which has replaced almost the entire organ. It extended backwards, surrounding the left carotid artery and invading the left vagus. Its longest diameter is $5\frac{3}{4}$ inches (transversely). It has a nodular outline, and showed a distinct capsule. On the right side the right vagus was compressed. The left jugular vein has been invaded by the tumour. The consistence of the growth shows great variation; in places it is as hard as cartilage. In colour it was yellowish-white with here and there areas of a pinkish tinge. Secondary growths of similar appearance were found in the lungs, kidney, heart and right humerus.

Microscopic examination shows that the tumour is a mixed-celled sarcoma.

The patient was a female, aged 58.

M.N. 3682. D.B. 4796. P.M.M. 792. Jan. 15, 1906. Dr. Harris.

THYROID GLAND: Carcinoma, Metastases in Lymph Glands 46 : 66 · 3
43 · 1 : 66 · 3
22 : 66 · 3
22 : 66 · 3

The thyroid gland is the seat of a large elongated regularly oval mass of new growth, which protruded forwards in front of the neck. The normal outline of the gland is obliterated. There is a mass of enlarged lymph glands on each side of the thyroid, separated from the latter by the carotid artery. These glands are the seat of secondary deposit of growth, and as they have each attained an equal size they give the whole the appearance of an enlarged thyroid gland. On section the tumours have a finely granular creamy-white fleshy appearance; here and there are capillary hæmorrhages, but no signs of cysts. The cut surface of the enlarged glands has the same appearance as that of the main mass. A few similar, though smaller, enlarged lymph glands were found in the left supra-clavicular region. There was also a secondary deposit in the pericranium, over the right parietal, which had perforated that bone. It will be seen also that the growth has invaded the larynx as a small irregularly nodular pinkish projection on a narrow base beneath the anterior aspect of the thyroid cartilage. A similar invasion is found on the right anterior aspect of the trachea just below its middle.

Microscopically the tumour consisted of carcinomatous growth, with a small amount of matrix. The cells are massed together, partly lining spaces filled with colloid secretion, and partly without any definite arrangement. Metatastic growths of a similar structure were found in the lymph glands, the lung, and the scalp.

The patient was a male, aged 61. The swelling in the front of the neck had existed for 10 months. Three months later those on the lateral aspects appeared. Dysphagia supervened. He died the evening he was admitted to the M.R.I.

THYROID GLAND: CYSTS, EXCLUDING BRONCHOCELE.

M.N. 3164. Dec. 27, 1904. Mr. Platt.

THYROID GLAND: Hydatid Cyst. 46 : 67 · 4

The specimen consists of a semi-gelatinous endocyst of a hydatid, which formed in the thyroid gland.

The patient was a boy, aged 8 years. Three months previously a small swelling had appeared in the neck and had gradually increased in size. The cyst was situated in the left lobe of the thyroid gland, and microscopic examination of the contents showed the presence of hooklets. The cyst was enucleated Dec. 27, 1904.

THYROID GLAND: GENERAL NUTRITIONAL DISEASES.

M.N. 2831. D.B. 4087. P.M.M. 415. May 25, 1903. Dr. Dreschfeld.

THYROID GLAND: Exophthalmic Goitre. 46 : 83 · 1
46 : 62

The thyroid gland is moderately enlarged. All lobes are affected as well as the isthmus. The appearance of the gland is normal. On section it had a normal appearance also.

On microscopical examination there was found hyperplasia of the parenchyma, and to a slight extent of the interstitial tissue. The heart was small. There was marked congestion of the mucous membrane of the stomach and lower part of the ileum. There was a history of exophthalmos and enlarged thyroid for several years. Towards the end of life vomiting of blood and melæna occurred. There were no ulcers in the wall of the intestine.

The patient, a female, aged 37, became delirious, and died of exhaustion.

M.N. 3270. D.B. 3546. P.M.M. 1896, No. 88. Feb. 4, 1897. Dr. Dreschfeld.

THYROID GLAND: Graves' Disease (in a Male.) 46 : 83 · 1
46 : 62

The specimen shows the enlarged thyroid gland and the larynx and upper part of the trachea. The lobes are uniformly enlarged, and the isthmus uniting them is situated immediately above the sternum. The tissue of which the lobes are formed is of a glandular structure, the alveoli being filled with small masses of colloid material. There are no large cysts.

The patient was a male, aged 38, and was admitted to the Infirmary complaining of vomiting and diarrhœa and shortness of breath, palpitation and protrusion of the eyes. The pulse-rate was 120—160. Death took place suddenly from cardiac failure during an attack of bronchitis.

ADRENAL GLAND: CIRCULATORY DISTURBANCES.

M.N. 3378. D.B. 4636. P.M.M. 727. July 3, 1903. Dr. Dreschfeld.

ADRENAL GLANDS: Hæmorrhage. 47 : 33

Both adrenal glands are somewhat enlarged, the larger one being the left. They have retained their shape, and feel very firm. Each is the seat of an extensive hæmorrhagic infiltration, affecting especially the medulla and the peri-adrenal cellular tissue. The cortex is least affected, and is readily distinguished.

The patient was a female, aged 21, suffering from ulcerative colitis, who died suddenly. No disease was found in the arterial system. (See bowel M.N. 3377—35·4 : 55·3, heart M.N. 3493—12 : 41 and spleen M.N. 3494—45 : 36·1.)

ADRENAL GLAND: MALIGNANT TUMOURS.

M.N. 2728. D.B. 3806. P.M.M. 73. Sept. 13, 1900. Dr. Dreschfeld.

ADRENAL GLAND: Sarcoma 47 : 65 · 3

The specimen consists of a mass of new growth which replaced the left supra-renal gland. On its outer aspect are attached the remains of the left kidney, and on the upper and anterior aspect is the spleen, and beneath this, stretching towards the middle line, is the pancreas. Within these limits the tumour forms a large circumscribed mass with a well-defined capsule. On the cut surface it is seen that the tumour is attached to the upper pole of the kidney, and that it has invaded and destroyed the kidney, except at the lower pole of the latter, where some normal renal tissue remains. The structure of the tumour defines itself as a mosaic of rounded areas of irregular size, showing in many instances central softening and hæmorrhage.

Microscopically the tumour is composed of cells varying very much in size and arrangement, some of them being of a giant-cell type with multipartite nuclei. In some areas a distinctly alveolar arrangement prevails.

The patient was a male, aged 24. He was ill for about 2 years, pain in the left side preceding the appearance of a tumour. The tumour extended across the middle line to the right side, but did not reach downwards further than the umbilicus. At the autopsy secondary tumours were found in the lungs. The right kidney and adrenal gland were normal. Thrombosis occurred in the inferior vena cava and common iliac veins. (See *Journal of Pathology*, Nov., 1904.)

M.N. 2801A. D.B. 4010. P.M.S. 253. Oct. 21, 1902. Mr. Collier.

ADRENAL GLAND: Carcinoma. 47 : 66 · 3
51 : 66 · 3

The left kidney weighed 20 oz., and the enlargement was in the form of nodular growths which were soft in consistency. They possessed an ill-defined capsule. The smaller nodules were firmer in texture, and there were no hæmorrhages in the tissue of the tumour. A small amount of kidney substance

remains uninvaded by the tumour. There was no distinct adrenal gland found in the left side. It was apparently embedded in the tumour.

Microscopically the tumour is of the adrenal type of tissue.

The patient was a male, aged 50. He came to Hospital for non-union of a fractured femur. There were no kidney symptoms. He was much emaciated, and died from exhaustion. There were secondary growths in the lungs and liver. (See M.N. 2801B below.)

M.N. 2801B. D.B. 4010. P.M.M. 253. Oct. 21, 1902. Mr. COLLIER.

SUPRARENAL GLAND; Carcinoma. 47 ; 66 · 3

The right kidney was pale, but otherwise normal. The adrenal gland is uniformly enlarged, but retains its pyramidal outline. It was soft, and on section the surface was pale yellow. This tumour is much more uniform than the larger one on the left side.

The microscopic structure was the same as in the tumour on the left side. (See specimen M.N. 2801A above.)

ADRENAL GLAND: GENERAL NUTRITIONAL DISEASES.

M.N. 3492. D.B. 4717. Oct. 29, 1905. Dr. Edge.

SUPRARENAL GLANDS and KIDNEYS: Addison's Disease. 47 : 83 · 4 51 : 42 · 2

COSTAL CARTILAGES and DIAPHRAGM: Abscess. 83 · 3 : 54 · 5

The supra-renal glands are replaced by fatty tissue, in which lie one or two small nodules of the original glandular structures. The kidneys show marked congestion, and are of the peculiar brown colour associated with Addison's disease. The pieces of costal cartilage and diaphragm show a mass of necrotic tissue lying immediately under the peritoneal covering of the diaphragm. From the contents of the abscess a cultivation of bacillus coli communis was isolated.

Microscopically the supra-renal glands consist chiefly of fatty tissue. In one gland there is considerable small-cell infiltration, amongst which a few scattered, degenerating, medullary supra-renal cells are visible. In the other there are a few minute islets of gland tissue which are surrounded by small cells, and an increased amount of fibrous tissue; there is also considerable deposit of calcium salts. The gland cells are granular and obviously degenerated, and the nuclei show signs of karyorrhexis. No tuberculous changes are present.

The patient was a man, aged 31 years, with a history of general weakness extending over some years, and of occasional attacks of vomiting. There was pigmentation of the skin. (See heart M.N. 3486—12 : 42·8.)

URINARY SYSTEM AND MALE GENERATIVE ORGANS.

KIDNEY: CONGENITAL LESIONS.

M.N. 2. Dr. C. Holmes.

KIDNEYS: Congenital Ectopia with Symphysis (true). Malformation. True Horse-shoe. 51 : 12

The right pelvis has been removed exposing the pyramids projecting into the opened calyces. The two kidneys are indistinctly lobulated, and joined at their inferior extremities by a band of renal tissue, which anteriorly appears as a lobule, small but distinct. Both kidneys are long and narrow.

M.N. 3. P.M.M. 1889, No. 160. March 21, 1890. Dr. Graham Steell.

KIDNEYS: Congenital Ectopia with Symphysis (true). Malformation. True Horse-shoe. 51 : 12

The vessels and ducts have been dissected out by the removal of fat from the sinuses, both ureters and pelves have been reflected outwards to show the lobe uniting the two kidneys. The two kidneys are fairly normal in size, and are united at their inferior extremities by a broad band of renal tissue, which anteriorly appears as a distinct lobule of considerable size. The total weight is $10\frac{1}{2}$ ozs.

The patient died from chronic bronchitis, emphysema, and cardiac failure.

M.N. 5. D.B. 930. Nov. 11, 1889. Dr. Hunt.

KIDNEYS: Malformation. True Horse-shoe, Hydronephrosis of Left Kidney. 51 : 12 57 : 67 · 1

The two kidneys are joined at their inferior extremities by a band of renal tissue, which appears as a wedge-shaped lobule. Total weight 250 grammes. The right kidney appears enlarged and somewhat flattened, the hilum is situated more anteriorly than normal, the pelvis is slightly dilated and subdivided into four long calyces. In the left kidney the calyces are much distended, and the renal parenchyma is much atrophied. The pelvis is much dilated (hydronephrosis).

M.N. 7. D.B. 965. Dec. 13, 1889. Mr. E. C. Bowden.

KIDNEY, URETERS, BLADDER: Malformation. Double Ureter. 52 : 12

In the right kidney the surface is slightly lobulated. The right ureter commences in a double pelvis and is double to within one inch of the bladder, and both divisions and the lower single part appear thickened and dilated. There is only one right ureteric orifice. The left ureteric opening is apparently normal.

M.N. 8. D.B. 1569.

GENITO-URINARY ORGANS: Malformation. 51 : 12
52 : 12

Kidneys. Right: 25 grammes; lobulated, the surface is divided into 14 lobules by shallow furrows. Left: 40 grammes. The upper half is lobulated, the interlobular furrows being shallow; the lower half is in a condition of hydronephrosis, the renal parenchyma being markedly atrophied. Urinary passages:—On the right side, the renal pelvis is apparently absent, the ureter is divided in its upper part, one branch coming from the upper half of the kidney, the other from the lower half; this latter appears to form a slightly funnel-shaped pelvis. The undivided portion of the ureter appears normal. On the left side the ureter is double, the upper ureter is normal; the lower ureter is considerably elongated, tortuous and dilated; above, it is connected by a small dilated pelvis with the lower hydronephrotic half of the kidney; below, it is imperforate, and projects into the interior of the bladder as a cyst.

M.N. 9. D.B. 1174. Nov. 6, 1890.

KIDNEY: Congenital Hypoplasia. 51 : 12 · 2

The organ has been bisected so as to expose the cavity of the pelvis. The kidney is very small: length, $1\frac{1}{2}$ inches; width, $\frac{3}{4}$ inch. It is markedly lobulated, being divided into seven or eight rounded lobules by deep fissures. The renal tissue and fat in the hilum seem to be atrophied. Pelvis and calyces:—The calyces are so short as to be apparently absent, the pyramids project into

what seems to be the cavity of a pelvis considerably reduced in size. Ureter:— It appears very large, but its absolute size is probably normal, the disproportion between diameter of ureter and size of kidney being due to the arrest of the growth of the latter. The structure of the kidney is, generally speaking, normal. There is no marked increase of fibrous tissue, except in the capsule in the regions where the surface of the organ is depressed by a horizontal groove. The arteries are well formed, with a thin intima, and normal muscular and adventitious coats. The Malpighian bodies are large or normal or atrophied. (See spleen M.N. 2027—45 : 21.)

M.N. 61. D.B. 1432. Feb. 28, 1892. Dr. Harris.

KIDNEY: Congenital Hypoplasia with Nephritis. 51 : 12
51 : 52

Contrasting the size of the organ with that of the ureter it is obvious that the kidney is very considerably diminished in size. The capsule is rough, ragged and adherent to the perirenal tissues. On section the renal parenchyma is seen to be greatly diminished in extent and the kidney has been completely disorganised. The other kidney was described as a large white kidney.

M.N. 63. D.B. 1606. P.M.M. 1886, No. 133. Dec. 1887. Dr. Morgan.

KIDNEY: Horse-shoe Kidney, Renal Calculi, Pyonephrosis and Pyelonephritis. 51 : 12
51 · 1 : 67 · 1
51 : 53

In the lumbar region a horse-shoe kidney was found stretching across the vertebral column, the convexity of the organ being downwards. From the concavity of the structure two ureters proceeded, and passed over the anterior surface of the organ. The left half of the kidney was very large and was surrounded by a massive growth of fibrous tissue. This part of the composite kidney was very densely adherent to the posterior abdominal wall. The left ureter was thickened and dilated. The pelvis and calyces were dilated in the left half, and filled with greenish yellow pus. In several calyces, brown, friable calculi were present. The parenchyma of the left half of the kidney was replaced by firm, fibrous tissue.

M.N. 64. D.B. 939. P.M.M. 1887, No. 148. Nov. 22, 1889. Mr. Jones.

KIDNEY: Horse-shoe Malformation. 51 : 12
51 · 1 : 67 · 1
51 : 52

The kidneys of this case were united opposite the 4th lumbar vertebra by a somewhat contracted piece of kidney tissue. The right half of the kidney showed the dilatation of hydronephrosis. The distended calyces were filled with thin pus, and in the pus three irregular black spiculated calculi, the size of beans, were found. The left half of the kidney exhibited a rough surface, and was dotted over with small whitish areas (miliary abscesses). In the bladder, which was small and firmly contracted, the rugose mucous membrane was covered by a deposit of phosphates. The ureter of the right side is somewhat dilated.

M.N. 87. D.B. 1598. Nov., 1886. Dr. Hutton.

KIDNEY: Teratoma. 51 : 14

Attached to the kidney is seen a large cystic tumour with well-defined outline. The smaller cysts have colloid contents, but in the case of the larger cysts the contents are granular. There is also a large amount of solid tissue separating the cysts, and here and there hæmorrhage has occured.

Microscopic examination shows the presence of a large variety of tissues. Tubules lined by columnar epithelium situated in a matrix of myxomatous connective-tissue, areas of round or spindle-celled sarcomatous tissue and areas of myxomatous structure may be found in this tumour.

M.N. 2515. D.B. 1878. P.M.M. 1893, No. 24. Dec. 28, 1892. Dr. Leech.

KIDNEYS: Congenital Lobulation 51 : 12

The kidneys are lobulated and unequal in size, the right being the larger. Otherwise the kidneys are normal.

The patient was a male, aged 57, who died of heart disease.

M.N. 2586. D.B. 2136. Aug. 18, 1893. Mr. Jones.

KIDNEY: Small Kidney with Abnormal Vessels. 51 : 12
14 · 6 : 12
15 · 6 : 12

The kidney is reduced in size, weighs 55 grammes, and its surface is irregular. There are two arteries, one anterior to, the other posterior to, the pelvis. In addition to the renal vein there are two accessory veins emerging direct from the kidney above and below the hilum.

M.N. 2589. D.B. 2518.

KIDNEY; Lobulation. 51 : 12

The kidney weighs 32 grammes. The surface is divided by furrows into about 14 lobules, four of which are indistinct. The furrows are deeper, and the lobulation more distinct on the anterior than on the posterior surface.

M.N. 2597. D.B. 3215. P.M.M. 1895, No. 144. July, 1895.
Dr. Graham Steell.

KIDNEY: Horse-shoe Malformation. 51 ; 12

The kidneys were found to form a "horse-shoe." The isthmus passed across the middle of the fourth lumbar vertebra. The organs were enlarged and weighed 19 ozs. with the vessel attached. There was some parenchymatous nephritis. The ureters crossed the isthmus, and there were some accessory blood-vessels. The patient suffered from dyspnœa, dropsy and profound anæmia. The left ventricle was enlarged and dilated, and the central opening was widened. There was some stenosis of the aortic opening.

M.N. 2605. D.B. 3529. P.M.M. 1896, No. 116. March 20, 1897.
Dr. Wilkinson.

KIDNEY: Lobulation. Divided Ureter. 51 : 12
52 : 12

The kidney is enlarged and weighed 180 grammes. The surface is divided into 18—20 lobules by furrows, which are deeper and more distinct on the anterior than on the posterior surface. The ureter is double in its lower part, the division occurring about 2 inches above the bladder. The kidneys are in the "large white" stage of subacute nephritis from which the patient died.

The patient was a woman aged 46.

M.N. 2618B. D.B. 3720. P.M.M. 1899, No. 147. Oct. 2, 1899.
Dr. Graham Steell.

KIDNEY: Malposition. 51 : 11

This specimen is a preparation to show congenital displacement of the left kidney, which was found lying over the left sacro-iliac synchondrosis. The left supra-renal capsule was in the normal position. The right supra-renal capsule is shown *in situ*. (See sigmoid flexure M.N. 2618A—35·4 : 66·4.)

M.N. 2833. D.B. 4089. P.M.M. 417. May 26, 1903. Dr. Harris.

LEFT KIDNEY: Congenital Hypoplasia. 51 : 12 · 2
RIGHT KIDNEY: Hypertrophy and Hydronephrosis. 51 : 62
51 : 67

The left kidney is small, weighing 1 oz. The capsule was adherent to the peri-renal fat, thickened, and firmly adherent to the cortex. The sub-capsular surface was granular. The right kidney was enlarged, and weighed 7 ozs. There is slight congenital lobulation. The capsule is somewhat adherent. The pelvis and calyces are dilated, the medulla is thinned, and the ureter is dilated. The cause of the hydronephrosis in this case was a matting of the pelvic tissues from peritonitis.

The patient, a female aged 33, died from uræmia.

M.N. 2847. D.B. 4114. P.M.S. 325. July 3, 1903. Mr. Thorburn.

KIDNEY: Congenital Absence of the Left Kidney and Ureter. 51 : 12 · 1
52 : 12 · 1

The right kidney was situated in its normal position. It was small, about $\frac{1}{3}$ of its normal size, flattened and irregularly triangular, the greatest diameter being $2\frac{1}{4}$ inches, and greatest thickening $\frac{3}{4}$ inch. The lower quarter is occupied by a smooth-walled cyst. The kidney was pale and firm. Its capsule was adherent to the perirenal fat, and firmly adherent to the renal tissue. The ureter is small and its walls thin. It entered the anterior surface of the kidney about its centre. The kidney tissue is tough and pale-pink, and there was no differentiation between cortex and medulla. The whole of the cut surface bears

more resemblanee to the cortex than to the medulla. On microscopic section there was found extensive interstitial overgrowth, with atrophy of the glomeruli. The blood-vessels are much thickened. The left kidney and ureter are eompletely absent. The bladder is normal. There is no trace of the left ureteric opening.

The patient was operated on for floating kidney, but died soon after the operation.

M.N. 3417. D.B. 4084. P.M.M. 411. May 21, 1903. Dr. Graham Steell.

KIDNEY: Malposition. 51 : 11
51 : 12

The left kidney was situated in the pelvis in front of the left sacro-iliac joint, the rectum being pushed by it over to the right side. The kidney is flattened and more disclike than normal, and its anterior surface is grooved longitudinally to receive the spermatic vessels. The left ureter is much shorter than its fellow, although it did not run in a straight line from kidney to bladder, but pursued a tortuous eourse. The left renal vein arose two inches below the level of the corresponding vein, but it ran a much longer course, travelling first directly across the spine behind the aorta, then turning downwards almost at a right angle, and pursuing its course down the left side of the vertebræ till it reached the kidney. Another large, tortuous vein leaves the kidney and, running downwards along the ureter, ends in the internal iliae vein. The right kidney, ureter, and their blood-vessels were normal in situation and appearance.

The patient was a male, aged 23, who died from pneumonia.

M.N. 3550. D.B. 4678. P.M.M. 743. Aug. 11, 1905. Dr. Judson Bury.

KIDNEY: Congenital Malformation. 51 : 12

The two kidneys are fused by a large lobe of renal tissue having the same appearance as normal kidney substance. The segment corresponding to the left kidney lay in the middle line over the bodies of the 3rd and 4th lumbar vertebræ. The left adrenal gland was in its normal position. The renal arteries are four in number and rise from the aorta at the normal level. There is a similar arrangement of the renal veins. The ureters were normal, and lay in the grooves on the anterior surface of the organ.

The patient was a man aged 23, who died from spinal disease. At the autopsy there was found a Meekel's divertieulum, but no other congenital abnormality.

M.N. 3555. D.B. 4646. P.M.M. 737. July 15, 1905.

KIDNEY: Congenital Malformation. 51 ; 12

The specimen shows the union of the two kidneys by an isthmus of typical renal tissue, in size about equal to that of a normal kidney. This band lay across the body of the 2nd lumbar vertebra. The segments representing the normal kidneys are separated from the isthmus by grooves. The two hila of the kidneys are situated on the anterior aspect of the organ. The renal arteries were four in number and arose more anteriorly than usual from the aorta; they were of the calibre of a normal radial artery.

The patient was a male, aged 21, who was brought in dead. (See heart M.N. 3551—14·4 : 55·2 and spleen M.N. 3603—45 : 12.)

M.N. 3649. Mr. Burgess.

KIDNEY: Horse-shoe Malformation. 51 ; 12

The specimen shows the kidney, ureters, and bladder, with renal vessels, aorta, and inferior vena cava, *in situ*. This specimen was removed from a male, aged 36.

M.N. 3650. D.B. 3790. Dr. F. C. Moore.

KIDNEY: Congenital Absence. 51 ; 12 · 1
51 : 62
52 : 12 · 1

The specimen shows a hypertrophied kidney from the left side, with adrenal gland, ureter, and vessels. On the right side the kidney is entirely absent, but the adrenal is present, and of the normal size. The ureter on the right side also is absent.

M.N. 3677 A, B. D.B. 4746. P.M.M. 776. Nov. 20, 1905.

KIDNEYS: Hypoplasia. Compensatory Hypertrophy. 51 : 12 · 2
51 : 62

The left kidney remains as a small flat strip of pale greyish-pink, firm tissue. In size it is equal to only half of the normal adrenal gland against which it lies. The renal vessels are in their normal situation, but are very small. The right kidney is about twice the size of a normal kidney, and weighed 12 ozs. The kidney showed diffuse passive hyperæmia, but was otherwise normal.

The patient was a male, aged 46, who was admitted to M.R.I. moribund, and died within a few minutes from cardiac failure, consequent on emphysema and bronchitis.

KIDNEY: MECHANICAL LESIONS.

M.N. 27. D.B. 1498A. Dr. KELYNACK.

KIDNEYS: Traumatic Rupture. 51 : 21

The left kidney is broken up into a number of irregular fragments. The right kidney is lacerated in its upper half, from which the capsule has been stripped. (See *Medical Chronicle*, 1892.)

M.N. 2557.

LEFT KIDNEY: Laceration from Trauma. 51 : 21

The organ, which is normal as regards size, shape, etc., presents on its anterior aspect several irregular lacerations of the superficial part of the cortex.

M.N. 2598. D.B. 3219. P.M.S. 1892, No. 202.

KIDNEY: Lacerated Wound. 51 : 21

This specimen consists of a section of the right kidney, and shows a considerable amount of blood-clot situated on the surface and in the outer part of the cortex. The hæmorrhage had resulted from a lacerated wound of the kidney, due to an injury in the loin. The right kidney was to a large extent broken up, and a blood cyst had formed which stretched from the cæcum to the diaphragm, behind the ascending colon. The patient lived 10 days in hospital, and before he died showed symptoms of intestinal obstruction. There was some evidence of chronic interstitial nephritis.

The patient was a man aged 49.

KIDNEY AND PELVIS: CIRCULATORY DISORDERS.

M.N. 90. D.B. 1575.

KIDNEY: Hæmato-pelvis. 51·1:33

The kidney is fairly normal in size. The calyces are dilated and the papillæ correspondingly flattened. Projecting into the dilated calyces are irregular masses of blood clot, which are continuous with large oviform clots, occupying the distended pelvis. The tissues lying between the hepatic flexure, the second part of the duodenum, and the anterior aspect of the renal pelvis, were dense, and firmly matted together these various structures.

M.N. 2785. D.B. 3989. May 9, 1902.

KIDNEY: Anæmic Infarction. 51:36·1

The specimens consist of four thin sections of kidney, showing anæmic (white) infarcts in the cortex. These appear as white areas of various sizes, the smaller ones being wedge-shaped, the larger ones more flattened. They are well defined, and surrounded by a zone of inflammatory reaction (red zone). (See heart M.N. 3430—12:62·1.)

M.N. 2974. D.B. 4099. P.M.M. 421. May 28, 1903. Dr. Graham Steell.

KIDNEY: Embolic Atrophy. 51:36·1
51:41

The right kidney weighed $2\frac{1}{2}$ ozs., and it was very firm. The capsule was very adherent and thickened, and the surface under it was very granular and dark red. On section it was firm and dark red. The cortex was markedly thinned. Opposite the depressions it is specially thin. The left kidney is larger than normal and weighed $7\frac{1}{2}$ ozs. It is firm, and while the capsule stripped off easily, it left a granular dark red surface, on which are seen a few minute clear cysts, and a few linear puckerings. It was firm on section, paler than the right kidney, and the cortex was of normal thickness. There was a general slight overgrowth of interstitial tissue.

The patient was a female, aged 40. There was no atheroma of the aorta. There was a history of rheumatism. (See heart M.N. 2840—12:34·1, and spleen M.N. 2841—45:36·1.)

M.N. 3553. D.B. 4660. P.M.M. 737. July 15, 1905. Dr. Graham Steell.

KIDNEY (LEFT) : Embolic Atrophy. 51 : 36
51 : 41

The organ is very small and of extremely irregular outline. It weighed $1\frac{1}{2}$ ozs. The capsule stripped off easily from the projecting positions, which were smooth, and of a normal colour; but from the depressed portions it stripped off with considerable difficulty, leaving areas of scar-like tissue. On section, at these depressed areas, there is much loss of both cortical and medullary tissue. The cortex is of normal appearance in the non-depressed areas. The other kidney was normal.

For clinical notes see heart M.N. 3552—13·1 : 55·5.

KIDNEY: RETROGRESSIVE DISORDERS.

M.N. 21. Mr. G. Southam.

KIDNEYS, URETERS, BASE OF BLADDER: Atrophy and Cyst of Right Kidney. Hypertrophy of the Left Kidney. 51:41 51:53 51:67·1 51:62

The right kidney is very much diminished in size, and its outline is very irregular from the presence of cysts which are partially collapsed. The right ureter divides into two at its upper extremity, and throughout its course shows irregular dilatation. The left kidney is much enlarged from compensatory hypertrophy; its ureter is normal.

M.N. 35. D.B. 1276A. July 6, 1891. Dr. Dreschfeld.

KIDNEY: Lardaceous Infiltration. 51:42·5

The specimen shows one half of the kidney. It is not enlarged, and the relation of cortex and medulla is not markedly altered. The clear streaks and areas seen through the substance are the result of the lardaceous infiltration of the blood-vessel walls.

The patient suffered from leprosy. (See liver M.N. 269—36:54·5.)

M.N. 60. D.B. 1573. June, 1888. Mr. Jones.

KIDNEY: Calculi, Pyelo-nephritis. 51:43 51:53 51:41

The organ is greatly diminished and so deformed as to be almost unrecognisable. The surface is rough and traversed by a number of deep, irregular fissures. In the hilum, from which the pelvis and vessels have been cut away, the projecting parts of two yellowish-white calculi are to be seen.

M.N. 65. D.B. 635. P.M.S. 1887, No. 17. Jan., 1888. Mr. F. A. Southam.

RIGHT KIDNEY: Pyelonephritis. Calculus. 51 : 43
51 : 52
51 : 54 · 5

The organ is enlarged, lobulated, and firmly adherent to the perirenal tissues. On section the renal parenchyma is seen to be largely replaced by cystic cavities communicating with dilated calyces and pelvis. The inner aspect of these cavities is rough and covered with inflammatory exudation. In the pelvis and projecting into the beginning of the ureter there is an irregular, yellowish-white calculus, soft and friable. This calculus lay in a large collection of greenish-yellow pus. The kidney substance was of a greyish-red colour, evidently the seat of chronic inflammation. (For description of the fellow kidney see M.N. 66, below.)

The patient was a man aged 23.

M.N. 66. D.B. 635. P.M.S. 1887, No. 17. Jan., 1888. Mr. F. A. Southam.

LEFT KIDNEY: Renal Calculus. Dilatation of the Pelvis. Atrophy of the Kidney. 51 : 43
51 · 1 : 27
51 : 41

The organ is enlarged, its surface is smooth and lobulated. At its lower end a white calculus is seen embedded in the renal parenchyma. The pelvis of the kidney is enormously dilated and thickened, and contains four large, smooth, facetted white calculi. The kidney substance was thinned, but was of a healthy red colour, and it showed no signs of inflammation. The pelvis contained originally 6 stones, which together weighed $5\frac{1}{2}$ ozs. They have the appearance of smooth pebbles from a beach. They are very hard and very smooth. The wall of the pelvis was thin and pale. There was no sign of inflammation. The weight of the entire specimen was $15\frac{1}{4}$ ozs. (See specimen M.N. 65 above.)

M.N. 67.

KIDNEY and URETER: Calculous Pyelitis. 51 : 43
51 : 52
51 : 41

The organ is somewhat enlarged, and on section the renal parenchyma of cortex and medulla is seen to be occupied by and replaced by a number of rounded cavities of uniform size, continuous with the dilated calyces; the inner aspects of these are rough and covered with inspissated inflammatory exudate. The calyces are occupied by large, irregular, branching calculi, which are probably composed of urates. A considerable amount of pigment has been deposited on the surface of the calculi.

M.N. 70. D.B. 1577.

RIGHT KIDNEY: Cyst containing Calculus. 51 : 43
51 : 67 · 1

The organ is fairly normal in size, and at its lower end there is a large, rounded, smooth-walled cyst, apparently occupying the position of two renal pyramids. In the interior of the cyst is an ovoid, whitish, tuberculated calculus.

M.N. 71. Mr. Turner.

RIGHT KIDNEY; Calculous Pyelonephritis. Atrophy. 51 : 43
51 : 53
51 : 27

The organ is considerably diminished in size (note the size of the ureter). The surface is slightly lobulated and presents a number of minute cysts containing a brownish colloid substance. On section the renal parenchyma is seen to be considerably reduced in extent, and the calyces somewhat dilated. At the lower end of the organ there is a large, oval, brown, tuberculated calculus occupying a dilated calyx and separated from the surface by a thin zone of renal tissue.

M.N. 156. Mr. F. A. Southam.

LEFT KIDNEY; Calculous Pyelitis. Interstitial Nephritis. 51 : 43
51 · 1 : 52 · 2

The organ is diminished in size, the surface shows indications of fœtal lobulation, is finely granular, and shows depressions corresponding to collapsed cysts. On section the cortex appears somewhat diminished in extent, and the medulla is atrophied in consequence of the dilatation of the calyces. The cavity in the cortex contained a number of calculi, some of which are seen as a sediment at the bottom of the jar.

M.N. 2398.

RENAL CALCULUS. 51 : 43

The concretion has the form of the pelvis of the kidney, is porous, and is covered with a layer of chalk-like material. It consists of uric acid and phosphates, and contains a large number of fragments of epithelium, and an excess of organic framework.

M.N. 2512. D.B. 1615.

LEFT KIDNEY: Pyelitis. Calculus. 51 : 43
51 · 1 : 52

The organ is fairly normal in size, its surface is rough. On section the renal parenchyma appears normal, except that it is atrophied in consequence of dilatation of some of the calyces. The pelvis is occupied by an ovoid, whitish-brown, tuberculated calculus. The mucous membrane of the pelvis shows a deposition of inflammatory exudate on its surface.

M.N. 2593. D.B. 2966. P.M.M. 1894, No. 149. Jan. 3, 1895. Dr. Leech.

KIDNEY: Amyloid Disease. 51 : 42 · 5

The kidneys were enlarged and white, and on examination with iodine solution showed lardaceous reaction in the glomeruli. Lardaceous reaction was observed in the spleen and to a slight extent in the liver.

The patient was a girl, aged fourteen, who suffered from tuberculous caseating pneumonia.

M.N. 2860. D.B. 4154. P.M.M. 483. Oct. 26, 1903. Dr. Harris.

KIDNEY; Calculus. Atrophy. 51:43
51·41

Outwardly the kidney appears normal. The capsule stripped off easily, leaving a smooth and somewhat pale surface. The pelvis contained a large, oval calculus, weighing 5 ozs., with a smooth, hard, and brown surface. The cortex is pale, though otherwise normal; but the medulla is atrophied, especially in the apices of the pyramids. The pelvis is dilated and shows smooth, congested walls. The calculus caused no clinical symptoms. The patient was in hospital for treatment of morbus cordis. The calculus consists of a mixture of urates and phosphates.

M.N. 3158.

KIDNEY: Calculus. 51:43
51:52·2
51:53

The kidney is situated in the midst of the perirenal fat, to which it is firmly united by fibrous strands. It has been laid open by an incision along its outer border, and it is seen that the parenchyma of the organ has been almost completely transformed into fibrous tissue of a white opaque character, showing here and there traces of red pigmentation. The pelvis is represented by a series of irregular cavities, lined by thickened mucous membrane, the surface of which is irregular from the deposit of inspissated inflammatory débris, and in one loculus is situated a calculus about the size of a bean. A glass rod has been placed in the ureter which is much thickened.

The patient was a woman aged 44 years. At the first operation in August, 1904, for a large pyonephrosis, calculi were removed. A urinary fistula persisted, and she was again operated on in February, 1905, when the kidney was excised.

M.N. 3245. D.B. 4403. June, 1904. Mr. Wright.

KIDNEY: Calculus. 51:43
51:53·3
51·1:27

The kidney is reduced in size, is completely converted into fibrous tissue with dilated calyces, and shows in its interior an irregular, yellowish-brown calculus. The outline of the organ is considerably distorted.

The patient was a woman aged 32 years, who had previously been operated upon for pyonephrosis. A urinary fistula persisted in the loin, and nephrectomy was successfully performed June 3rd, 1904.

M.N. 3287. D.B. 4223. P.M.M. 605. July 28, 1904. Dr. Harris.

KIDNEY: Calculous Pyelonephritis. 51 : 43
51 : 55 · 1
51 : 52 · 2
51 · 1 : 67 · 1

The kidney is very much enlarged, and weighed 25 oz. It is of an oval contour, firm and solid. It was surrounded by indurated tissue, which bound its capsule firmly to the tail of the pancreas, the descending colon and the peritoneum. Behind and below it lay a cavity with ragged walls, partly made up of disintegrated psoas muscle, and containing 6 oz. of thick yellow pus. This cavity was traceable down as far as the pelvic brim, and was traversed by the ureters, whose walls were thickened, but very friable. The whole mass feels very firm and tough, and is not apparently cystic to the touch. On section it cut with very great resistance, and in it were found several cavities lined by thick cream-coloured cheesy matter, containing yellow pus, and in most cases irregularly-shaped calculi with rough surfaces. These cavities were of about the size of a walnut. They were separated by strands of very firm white fibrous tissue. The capsule of the kidney is indistinguishable, and no trace of any tissue bearing resemblance to kidney tissue could be found. There is great thickening in the region of the hilum and pelvis, the cavity of which is not enlarged.

Microscopic examination showed that the tissue contains hardly any of the kidney structure, but is composed of fibrous tissue.

M.N. 3318. D.B. 4164. Nov. 9, 1903. Dr. Orchard.

KIDNEY and PERIRENAL FAT; Atrophy resulting from Suppurative Inflammation. 51 : 41
82 · 2 : 62

The specimen consists of a mass of peri-renal fat, and embedded in it are the remains of the kidney very much shrunken and fibrous; also the renal vessels which are less affected than the parenchyma. The characteristics of the kidney tissue are completely lost, and the fat of the hilum and of the peri-renal tissue form a continuous mass. This condition had resulted from chronic suppuration with a discharging sinus in the lumbar region. The origin of this was probably a renal calculus.

M.N. 3376. D.B. 4443. P.M.S. 447. May 16, 1905. Mr. Smith.

KIDNEY: Cloudy Swelling. 51 : 42 · 1

Each kidney is moderately enlarged, of flabby consistence, and weighs $7\frac{1}{4}$ oz. The capsule strips off easily. A few small stellate venules are found on the smooth, rather pale, sub-capsular surface. On section the cortex is somewhat thickened, turbid, greyish-red and pale.

The patient suffered from acute phlegmonous duodenitis. (For a description of the duodenum see M.N. 3356—35·4 : 54·4.)

KIDNEY: INFLAMMATIONS.

M.N. 36. Dr. Dreschfeld.

KIDNEY: Chronic Interstitial Nephritis, with Lardaceous Infiltration. 51 : 53 / 51 : 42 · 5

The organ is somewhat diminished in size, the surface is granular. On the cut surface the cortex appears considerably diminished in extent. The medulla has a slightly more homogeneous appearance than normal. Note the combination of fibrosis and waxy deposit in this organ.

The patient suffered from chronic abscess in the liver.

M.N. 39. Dr. J. E. Morgan.

KIDNEY: Parenchymatous Nephritis. Large White Kidney. 51 : 52 · 2

The organ is enlarged. The outer surface appears slightly ragged. On section the cortex appears increased in extent, the medulla is normal. In the bleached condition of this specimen it is very difficult to differentiate cortex and medulla. The chief point which can now be made out is the general uniform enlargement which is characteristic of the subacute stage of parenchymatous nephritis.

M.N. 44. Dr. Humphreys.

KIDNEY: Subacute Parenchymatous Nephritis. 51 ; 52 · 2

The organ, that of a child, who had suffered from scarlet fever, is enlarged; the surface is smooth. The substance of the kidney has obviously been very friable. The cortex is slightly thickened. The subcapsular surface is smooth.

M.N. 45. D.B. 1205. P.M.M. 1889, No. 290. Feb. 20, 1891. Prof. Leech.

KIDNEY; Parenchymatous Nephritis. 51 : 52 · 1

The kidney is considerably enlarged. The capsule peels off easily, and leaves a smooth surface. The cortex is much increased, and has a cloudy appearance.

The patient, a girl, aged 14, was emaciated and intensely anæmic. She suffered also from œdema of the lower extremities and ascites. There was some adhesive lymph as well as fluid in the abdominal cavity. The heart was small, the left ventricle being only slightly hypertrophied.

M.N. 51. D.B. 1587. P.M.M. 1881, No. 208. Feb. 6, 1884. Dr. Morgan.

KIDNEY: Chronic Interstitial Nephritis (Small White Kidney). 51 : 52 . 2
51 : 53

The organ is enlarged and pale. The surface from which the capsule has been stripped is uniformly granular. The capsule was slightly adherent, but there were no cysts visible after removal of the capsule. On section the cortex was found increased in extent, pale and mottled. The medulla was congested. Whitish streaks were seen in the cortex and medulla.

The patient died from cerebral hæmorrhage and softening; the heart was slightly hypertrophied, and the aorta was slightly atheromatous. The case was probably one of gouty origin. The kidney is in the stage of chronic parenchymatous nephritis, when interstitial changes have supervened.

M.N. 56. D.B. 1100. June 10, 1890.

KIDNEY AND URETER: Chronic Interstitial Nephritis (Small White Kidney). 51 : 52 · 2
51 : 53

The organ is somewhat diminished in size; its surface, from which the capsule has been stripped, is uniformly granular. On section the cortex is seen to be diminished in extent and to contain several rounded cysts with smooth walls. The vessels show arterio-sclerosis. The cortex is somewhat pale.

M.N. 57. D.B. 1076. P.M.M. 1889, No. 189. May 13, 1890. Dr. Graham Steell.

KIDNEY: Chronic Interstitial Nephritis. 51 : 53

The organ is diminished in size; the surface, from which the capsule has been stripped, is uniformly granular, and presents several thin-walled cysts, some of which have collapsed. On section the cortex was seen to be diminished to about $\frac{1}{8}$ of an inch, and to contain one or two small cystic cavities with smooth walls. The heart weighed 16 ozs. There was no atheroma of the aorta. The coronary arteries were much dilated at their commencement.

The patient suffered from marked ascites and general anasarca. The clinical notes suggest a history of gout and plumbism.

M.N. 58. D.B. 1571.

KIDNEY: Chronic Interstitial Nephritis (Atrophy). 51 : 53
51 : 41

The organ is very much diminished in size, its surface is granular, and presents a number of very minute cysts with brown contents. On section the cortex is diminished in extent, and also the medulla, the great bulk of the organ being occupied by the pelvis and calyces, which appear somewhat dilated, especially at the lower part, where the inner aspect of their walls is somewhat roughened.

M.N. 69. D.B. 1578.

KIDNEY; Pyelonephritis from Calculi. 51 : 52·2
51 : 43

On section the calyces are seen to be dilated and occupied by irregular branching calculi. The renal parenchyma is atrophied, and the part which survives has a very fibroid appearance. The organ has become distorted to such an extent that it is difficult to recognise the normal relations.

M.N. 72. Mr. W. Whitehead.

KIDNEY; Pyelonephritis. 51 : 52 · 1
51 : 54 · 5

The organ is somewhat enlarged and lobulated. On section the renal parenchyma is seen to be occupied by a number of cystic cavities with well-defined walls, the inner aspects of which are irregular. The formation of these cavities has been due to the distension of the pelvis and calyces of the kidney, by the accumulation of inflammatory products from suppurative pyelitis. This has led to blocking of the ureter, and destruction and expansion of the kidney substance; so that the greater part of the organ has come to form the wall of a large multilocular abscess cavity. The wall of the cavity is covered by suppurating granulation tissue.

M.N. 118.

KIDNEY: Pyelonephritis. 51 : 52 · 2
BLADDER: Vesical Calculus. 52 : 27
52 : 52
53 : 43
53 : 52

The specimen shows the kidneys, ureters and bladder. The bladder is small in size, and the walls are not much thickened. The cavity of the bladder is almost completely occupied by a large round calculus. Part of the anterior wall of the bladder has been removed to expose the calculus. This is seen to be smooth and white in its upper part, while below it is tuberculated and pigmented. The composition is probably a mixture of urates and phosphates. The ureters are dilated and the walls thickened. The right kidney has been laid open by a mesial incision. The pelvis is dilated, and the mucous membrane is thickened and slightly roughened on the surface. The kidney as a whole is enlarged, and both medulla and cortex show spaces of various sizes. These spaces have been formed as the result of a pyelonephritis giving rise to suppuration. The capsule is very markedly thickened, but apparently not very adherent. The left kidney has not been opened, but externally it has the appearance of a thick-walled and collapsed cyst. The pyelonephritis has caused a very extensive destruction of the parenchyma of the organ.

M.N. 2481. D.B. 2684. Oct. 11, 1894. Dr. Dixon Mann.

KIDNEY: Chronic Interstitial Nephritis. 51 : 53
51 : 67 · 1

The organ is diminished in size, the surface is granular, and presents a few thin-walled cysts. On section, the cortex is greatly diminished in extent, the medulla to a much less extent. Scattered throughout the parenchyma are a number of variously-sized smooth-walled cysts (retention).

The patient had suffered 25 years before death from scarlet fever.

M.N. 2603. D.B. 3516. P.M.M. 1896, No. 79. Jan. 28, 1897. Dr. Harris.

KIDNEY: Acute Tubular Nephritis. 51 : 52 · 1

The kidneys were much enlarged. Their united weight was 18½ oz. The surface was smooth, the capsule being easily detached. The whole organ felt firm. There was a large amount of congestion, and the cortex was relatively increased in size.

M.N. 2604. D.B. 3518. P.M.M. 1896, No. 85. Feb. 1, 1897.
Dr. Dreschfeld.

KIDNEYS: Chronic Interstitial Nephritis. 51 : 53

Posterior half of left kidney. Anterior half of right kidney. The kidneys together weighed 7 oz. The capsule was adherent. The consistency was greatly increased. The organs are diminished in size, the surface from which the capsule has been stripped in one of the specimens is granular. On section the cortex appears diminished in extent, and is the seat of several cystic cavities with smooth walls.

Post-mortem notes:—The patient, a male, aged 56, suffered from multiple neuritis. The heart was hypertrophied, and weighed 23½ oz. He had also hæmorrhage, both old-standing and recent, in the region of the pons. The cerebral vessels were extremely atheromatous.

M.N. 2786. D.B. 3992. P.M.S. 210. June 13, 1902. Mr. Wright.

KIDNEY: Pyelonephritis. 51 : 52·1

The specimen shows a thin slice of kidney. The pelvis gives no evidence of inflammation, but both medulla and cortex are dotted over with small yellow areas; in some cases a streak of inflammation can be traced from the medulla up into the cortex. The cortex is slightly swollen and opaque. This condition followed stricture of the urethra with hypertrophy, dilatation and inflammation of the bladder.

The patient died with acute endocarditis and hypostatic pneumonia. (See liver M.N. 2782—36 : 53.)

M.N. 2839. D.B. 4095. P.M.M. 420. May 28, 1903. Dr. Graham Steell.

KIDNEY: Chronic Parenchymatous Nephritis. 51 : 52·2
51 : 53

Each kidney weighs $3\frac{1}{2}$ ozs. The capsule is thickened and adherent. The subcapsular surface is granular, showing here and there small, round, white areas of fatty epithelium. The heart was much hypertrophied (31 ozs.), and the aorta was very extensively atheromatous. Death resulted from heart failure.

Microscopic examination showed extensive growth of interstitial tissue, which was in places markedly cellular. (See heart M.N. 2837—12 : 63·1, and aorta M.N. 2838—14·1 : 55·2.)

M.N. 2877. D.B. 4190. P.M.M. 538. Jan. 25, 1904. Dr. Graham Steell.

KIDNEY: Pyæmic Abscess. 51 : 54·5

The capsule is thickened over the area of the abscess, which is situated in the cortex, occupying the whole depth and slightly projecting above the normal level. Round the margin of the central abscess area are smaller foci, and in other parts of the kidney there are also a few small foci. The parenchyma of the kidney is pale in colour. There was in this case a retro-peritoneal abscess in the region of the kidney. The pus contained staphylococci. The septic process had commenced in the lung. Another abscess was found in the cerebellum. (See cerebellum M.N. 2864—73·2 : 54·5.)

The patient was a male, aged 21.

M.N. 3187. Mr. J. W. Smith.

KIDNEY: Pyonephrosis. 51 : 52 · 1
51 · 1 : 67 · 1

The specimen is a half of the right kidney. The organ is markedly enlarged, and this condition is due to an expansion of the cavity of the pelvis which has converted the kidney into a cyst-like structure, the expanded calyces forming loculi, and the remains of the kidney cortex forming the thick wall. The ureter whilst thickened has a narrow lumen. The upper end of the organ is broken up, and this is in part at least due to the presence of old infarction, areas of which are defined on the surface as pale yellow masses.

The patient was a woman aged 39 years, who had had a perinephritic abscess opened and drained 6 months previously. A urinary fistula persisted, and on Jan. 14, 1905, the kidney was removed. It was lying over the brim of the pelvis. Recovery was uneventful.

M.N. 3237.

KIDNEY: Pyelonephritis. 51 : 52 · 2
51 : 53

The kidney is greatly enlarged. The distinction between cortex and medulla has been lost, and the whole tissue consists of a tough, mottled, fibrous mass. There is no reaction of waxy degeneration. The calyces are enlarged, and the lining membrane is thick and rough.

The microscopic examination shows that the kidney tissue is, to a large extent, replaced by inflammatory deposits—the centre of which in many instances is necrosed and breaking down, and the whole tissue remaining presents a large amount of cellular reaction.

M.N. 3294A. D.B. 4278. P.M.M. 672. Jan. 2, 1905. Dr. Dreschfeld.

KIDNEY: Acute Tubular Nephritis. 51 : 52 · 1

The right kidney is of normal size; weight, 4 oz. The left kidney is slightly larger, and weighed 5 oz. Otherwise they show similar characters. They are of normal shape, and feel very tense. The capsule strips off very easily, but pulls away some of the renal cortex in places. The sub-capsular surface is

smooth, bright red, with brownish-red minute spots in great numbers. There are no stellate veins. On section the surface was found to be moist, and exuded much blood. The cortex was greatly thickened, friable, reddish-brown, and with innumerable brownish points scattered throughout it. The medulla was purple, but not very dark, and is apparently of normal thickness. The tubules show early fatty degeneration, and the yellow lines came together at the boundary zone.

The case was one of acute ulcerative endocarditis. (See heart M.N. 2960—13·2 : 55·6, and spleen M.N. 3294B—45 : 36·1.)

M.N. 3308. D.B. 4359. P.M.M. 700. March 17, 1905. Dr. Graham Steell.

KIDNEY; Catarrhal Nephritis with Interstitial Changes. 51 ; 52 · 2
51 : 53

Each kidney weighed 8½ oz. It was markedly enlarged. It was of normal shape, and felt tense. The capsule stripped off easily, but left a finely granular surface, which is distinctly paler than normal, and shows numerous minute yellow spots and a few small stellate venules. No cysts were present. On section it cut firmly, and the cortex is slightly thinner than normal. It is of a yellow-brown colour, but at the margin of the medullary pyramid the parenchyma is distinctly bright yellow, and the medulla is of a deep purple colour, contrasting markedly with the comparative pallor of the cortex.

The patient was a male, aged 36, who died from cardiac failure. (See heart M.N. 3307—12 : 34·1, and liver M.N. 3306—36 : 32.)

M.N. 3319. D.B. 4312. P.M.M. 688. Feb. 3, 1905. Dr. Harris.

KIDNEY: Chronic Parenchymatous Nephritis, with Interstitial Change. "Small White Kidney." 51 : 52 · 2
51 : 53

Both kidneys showed similar characters. Each weighed 4½ oz. They were normal in size and shape, and had a markedly granular surface. This granularity was readily detected before the capsule was stripped off. Their consistence was firm. The capsule was slightly adherent, but on stripping did not pull off any of the renal tissue. The sub-capsular surface shows well-marked granular projections throughout, and the granules are pale yellow, and even white in places, but the grooves between the granules are reddish-brown. A few small, clear, thin-walled cysts are seen. On section the cut surface was dry,

the cortex and medulla were paler than normal, and the cortex distinctly diminished in depth. In the medulla there are pale yellow streakings due to extension of the fatty change to the epithelium of the tubules in that region.

The patient was a female, aged 45, and was admitted to M.R.I. in a state of uræmic coma. The coma had followed a fit 12 days before her death. She was apparently quite well 3 months previously. There was much albumen in the urine. At the autopsy there were found hypertrophy and dilatation of the heart. No atheroma was present in the blood-vessels, but there were numerous small hæmorrhages in the skin and in the submucous tissue of the ascending colon.

M.N. 3342. D.B. 4604. P.M.M. 682. Jan. 26, 1905. Dr. Graham Steell.

KIDNEY: Chronic Interstitial Nephritis. 51 : 53
51 : 67 · 1

Both kidneys in this case showed the same lesions. Each weighed $2\frac{1}{2}$ oz. Each was small, firm, and of normal shape. The capsule stripped off fairly easily, and left a well-marked granular surface. The granules are of a yellow colour, and the intervening sulci are red and brown. There are no stellate venules. Each kidney contained a few small clear cysts projecting on the surface. On section the kidney cut firmly, and its surface was dry, and mottled brown and red. The cortex is reduced to a mere strip, and the medulla has much the same colour as the cortex.

The patient, a male, aged 37, died from uræmia. The heart weighed 21 oz. There was early atheroma in the aorta.

M.N. 3365. D.B. 4365. P.M.M. 703. May 28, 1905. Dr. Dreschfeld.

KIDNEY: Chronic Parenchymatous Nephritis. (Large White Kidney.) 51 : 52 · 2

The kidney weighed $9\frac{1}{2}$ ozs. It is much enlarged and elongated, and of firm consistence. The capsule stripped off easily, and left a smooth, very pale, yellowish-pink surface, on which a few dark stellate venules were seen. On section, the cortex is very much thickened and very pale—of a yellow colour with pinkish striped mottling. The whole surface bulged on section, and the renal tissue was somewhat friable. The medulla is paler than normal.

The patient, a male, aged 40, was admitted as a case of Bright's disease; croupous pneumonia supervened, and he died 5 days after admission. Marked hypertrophy of the left ventricle was found; also some thickening of the aortic valves, but no atheroma. (For description of the lung of this case see M.N. 3321—25 : 54·2.)

M.N. 3375. D.B. 4378. P.M.M. 707. Apr. 17, 1905. Dr. Harris.

KIDNEYS: Chronic Parenchymatous Nephritis with Interstitial Changes. 51 : 52·2
51 : 53
51 : 42·2

The kidney weighed $6\frac{1}{2}$ ozs. It is somewhat enlarged. The capsule stripped off easily but left a finely granular surface of a very yellow colour. The consistence was normal. The cortex is thickened, and contained a few small cysts, and is very pale yellow with red streaks. The medulla is pale, and not well contrasted with the cortex. The pallor is largely due to widespread fatty degeneration of the epithelium.

The patient was a male, aged 33. The heart was only slightly hypertrophied. Death was due to acute sero-fibrinous pleurisy.

M.N. 3510. D.B. 4681. P.M.M. 746. Aug. 28, 1905. Dr. Judson Bury.

KIDNEYS: Small White Kidney 51 : 52·2
51 : 53
51 : 42·2

Each kidney weighed $3\frac{1}{2}$ ozs.; they had similar characters. The size is somewhat diminished, and the shape is normal. The capsule was markedly adherent, and the subcapsular surface is markedly, though irregularly, granular, and of a brown and yellow mottled colour, the latter predominating in places. There are also a few enlarged stellate venules, and a few sparsely scattered, small, unilocular cysts. On section, the kidney was tough. The cortex is thinner than normal, and of a pale yellow colour, with faint red, streaky mottling. The medulla is somewhat pale, though otherwise normal, and is ill-differentiated from the cortex.

The patient was a female, aged 27, who died from diffuse suppurative peritonitis, following an acute gangrenous inflammation of the stomach and bowels. (See stomach M.N. 3592—34 : 55·4, large intestine M.N. 3526—35·4 : 54·3 and liver M.N. 3591—36·2 : 67·1.)

M.N. 3667. D.B. 4750. P.M.M. 780. Nov. 25, 1905. Dr. Wilkinson.

KIDNEY: Chronic Parenchymatous Nephritis, Renal Calculus. 51 : 52·2 51 : 43

The left kidney has been preserved in this case. The kidneys were somewhat enlarged. The right weighed 6, and the left 7 ozs. The capsule stripped off easily, but left a finely granular, pale, yellowish-grey subcapsular surface, on which are many small stellate venules, and a few minute, unilocular cysts, containing clear, limpid or colloid fluid. The capsule was also adherent to the perirenal fat. On section the cortex is distinctly thickened, is very pale, and has a markedly yellow colour, with some fine striped and reticular purple mottling. The medulla is purple but not dark. In the lower part of the pelvis of the left kidney are a few irregularly granular, small masses of calculi.

The patient was a male, aged 48, who died from acute pericarditis. (See heart M.N. 3666—11 : 54·2.)

M.N. 3692. D.B. 4788. P.M.M. 788. Dec. 28, 1905. Dr. Wilkinson.

KIDNEYS: Chronic Interstitial Nephritis. 51 : 53

Each kidney weighed $4\frac{1}{2}$ oz. They are of normal bulk; but both appear somewhat elongated. The capsule is much thickened and opaque throughout. It was slightly adherent to the perirenal tissue, and was very firmly adherent to the cortex of the kidney. The sub-capsular surface of the kidney is extremely granular. The granules are of moderate size, and are of a pale greyish-yellow colour; the intervening grooves are deep red, and show well-marked minute injected bright red blood-vessels. A few small clear cysts are seen on the surface. On section the organ cut very firmly; the cortex is much thinned and displays an irregular mottling of purple and greyish-yellow—the contrast between these colours is not nearly so well marked as on the sub-capsular surface. The medulla is of a streaky mottled purple colour. In some regions the contrast between cortex and medulla is almost lost. A few clear unilocular cysts are seen on the cut surface. The fat in the hilum of the kidney has increased, giving the whole kidney a somewhat elongated appearance.

Microscopically there is a very marked increase of the interstitial tissue, and the focal accumulations of leucocytes are very prominent.

The patient was a male, aged 37, who died from acute pericarditis. (See heart M.N. 3693—12 : 62·1.)

M.N. 3759. D.B. 4829. P.M.M. 803. Feb. 9, 1906. Dr. Wilkinson.

KIDNEY: Parenchymatous Nephritis. 51 : 52 · 2

The kidneys weighed 5½ oz. each, and they were alike in other respects. The specimen is a half of the left kidney. The organ is markedly enlarged (they were obtained from a girl, aged 12 years), the shape is normal, and the consistence is firm. The capsule stripped off easily, leaving a perfectly smooth surface of an extremely pale yellow colour, and on it were seen small groups of purple stellate venules. The cut surface is very anæmic; the cortex is much thickened, of a very pale yellow colour, and there is very little red streaking. The medulla is of a pale purple colour, and well contrasted with the cortex. The mucous membrane of the pelvis is very anæmic.

Microscopically the kidney shows, in addition to fatty degeneration and disintegration of the epithelial cells, marked inflammation of the glomeruli, which show a great amount of cellular proliferation as well as some degree of congestion and leucocytic infiltration. Here and there are to be seen foci of dense leucocytic infiltration, and some of the glomeruli show old-standing fibroid changes.

KIDNEY AND PELVIS: SPECIFIC INFLAMMATIONS.

M.N. 76. Mr. Turner.

KIDNEY: Tuberculous Pyelonephritis. 51 : 56 · 1
51 : 55 · 3
51 : 53

The organ is enlarged, the surface smooth and slightly lobulated. On section the renal parenchyma is seen to be occupied by a number of cavities with well-defined walls, the inner aspect of which is nodular, being lined by caseous material. The renal parenchyma, in consequence, is much atrophied and replaced by well-marked hyaline fibrous tissue.

M.N. 78. Sir William Roberts.

KIDNEY: Tuberculous Pyelonephrosis. 51 : 56 · 1
51 : 44 · 2

The organ is fairly normal in size, its surface is covered by a ragged capsule, and it is divided into a number of rounded lobules by sulci of varying depth. The renal parenchyma is almost entirely destroyed, its place being occupied by a number of rounded cavities, some of which are filled with cheesy caseous débris, whilst others are merely lined by an irregular layer of it. The pelvis is somewhat enlarged, and its inner surface is covered with irregular caseous nodules.

M.N. 79. D.B. 719. July, 1888.

KIDNEY; Tuberculosis. 51 : 56 · 1
51 : 55 · 4
51 : 44 · 2

The organ is enlarged, its surface is lobulated. On section the renal parenchyma is seen to be occupied by a number of rounded cavities with well-defined walls and caseous contents, and there is almost complete destruction of the secreting tissue. The pelvis is somewhat dilated, its inner surface is smooth and apparently normal, the calyces are elongated and in the upper part of the organ can be traced along the septa between the tuberculous cavities almost to the kidney capsule.

M.N. 80. Mr. Ed. Lund.

KIDNEY and LIVER: Renal Tuberculosis (Scrofulous Kidney). 51 : 56 · 1
51 : 55 · 4
51 : 44 · 2

The organ is markedly lobulated. On section the renal parenchyma is seen to be entirely occupied by a number of variously-sized cavities. The ureter is not much enlarged. This specimen shows very clearly the characteristic division of the caseous areas and cavities from each other by well-defined fibrous septa.

M.N. 81. D.B. 1602. P.M. 1881, No. 235. March 23, 1887. Mr. Heath.

KIDNEY: Tuberculous Pyelonephritis. 51 : 56 · 1
51 : 52

The organ is slightly enlarged and weighed $5\frac{1}{2}$ ozs. The surface, from which the capsule has been removed, is smooth and marked by several irregular depressions. The renal parenchyma is occupied by several large cavities, irregular in form, and each communicating with a calyx. The cavities have well-defined walls, the inner aspects of which present a layer of irregularly nodular caseating material. The calyces and pelvis are somewhat dilated and show a similar lining.

The patient was a male, aged 30. Tuberculosis was present in the epididymis and testis of the right side. The bladder showed superficial tuberculous ulcers. There was some evidence of meningitis (tuberculous) at the base of the brain. The lungs showed miliary tuberculosis. The pericardial layers were adherent, and there were general adhesions between the pleuræ, which were tuberculous. There was no peritoneal tuberculosis. The small intestine showed one or two ulcers, and the large intestine was ulcerated through the whole extent including the rectum. (For description of testis and epididymis see M.N. 206—56 : 56·1.)

M.N. 82. D.B. 981. Jan. 6, 1890.

KIDNEY; Tuberculosis. 51 : 56 · 1
51 : 44 · 2

The organ is markedly lobulated. On section the renal parenchyma is occupied by, and almost completely replaced by, a number of large, rounded masses, consisting of caseous material, and separated from each other by fibrous septa.

M.N. 126. D.B. 1600. P.M.S. 1881, No. 229. Jan. 14, 1887. Mr. Hardie.

KIDNEY: Tuberculosis. 51 : 56 · 1
52 : 56 · 1
53 : 56 · 1

The cavity of the bladder was of about normal dimensions, and the wall was covered with a gritty deposit, greyish-yellow in colour. The left ureter was markedly thickened, and the whole length of the tube was filled with soft, solid, cheesy material, which blocked the lumen. The left kidney was very large, and this was due to the distension of the pelvis and calyces, which were filled with thick, caseo-purulent material. The kidney substance remaining varied from $\frac{1}{4}$ to 1 inch in thickness, and was studded with small caseating foci. The right kidney showed one focus, about the size of a large bean. Both lungs were studded with tubercles. There were a few small tuberculous ulcers in the intestine.

The patient was a male, aged 29.

M.N. 2479. D.B. 2569. P.M.S. 1892, No. 124. May 28, 1894. Mr. Wright.

KIDNEY: Tuberculosis. 51 : 56 · 1
VESICULÆ SEMINALES: Tuberculosis. 55 : 56 · 1

The right kidney is wholly disorganised in the upper part from tuberculous inflammation and caseous necrosis. The lower half of the kidney is fairly normal in appearance. The left kidney is considerably hypertrophied, and there are a few small tuberculous nodules to be seen in its substance. The left ureter is dilated, and tortuous, and on opening it tubercles are seen in the lining membrane. The lining membrane of the bladder is not inflamed, but the vesiculæ seminales show tuberculosis.

M.N. 2485. D.B. 2717. P.M.S. 1892, No. 142. Oct. 22, 1894. Mr. Southam.

KIDNEY: Tuberculous Nephritis. 51 : 56 · 1

The specimen shows both kidneys and ureters, the bladder and penis, also the rectum and anus. The pelvis of each kidney exhibits tuberculous inflammation, but this is most marked on the left side. Both ureters

are swollen and distended from tuberculous inflammation. The bladder wall was thickened, and there were some submucous hæmorrhages but no ulceration. In the urethra beyond the neck of the bladder there is a large opening into an abscess cavity, which had formed in the region of the prostate. The vesiculæ seminales were tuberculous, and between the bladder and rectum there is a large tuberculous abscess cavity. There was tuberculosis of the lungs, old-standing and recent.

The patient, a man of 44, gave a history of urinary troubles for 8 years, and of hæmaturia 5 years ago.

M.N. 2513. D.B. 1616.

RIGHT KIDNEY: Tuberculous Pyelonephritis. 51 : 56 · 1
51 : 44 · 2

The organ, somewhat diminished in size, is distinctly lobulated. On section the renal parenchyma is seen to be replaced by a number of rounded cavities separated by fibrous walls and containing caseous material. There is practically no kidney tissue left. Some of the caseous material has softened, and on section has flowed, leaving a rounded cavity.

M.N. 2607. D.B. 3574. Dec. 1, 1897. Prof. Jones.

KIDNEY: Tuberculosis. 51 : 56 · 1

The kidney is greatly enlarged and has a lobulated outline. The surface of the lobules is comparatively smooth, but the cut surface shows the presence of large cavities arising from tuberculous inflammation of the mucous membrane of the pelvis, which spread to the medulla and cortex, causing caseous necrosis of the affected tissue, with subsequent disintegration, and converting the kidney into little more than a large, loculated, cyst-like structure, with a lining of tuberculous granulation tissue.

M.N. 2835. D.B. 4090. P.M.M. 419. May 27, 1903. Dr. Harris.

KIDNEYS, URETERS, BLADDER, PROSTATE, VESICULÆ SEMINALES, TESTES AND VASA DEFERENTIA: Tuberculous Infiltration along the Genito-urinary Tract.

51 : 56 · 1
52 : 56 · 1
53 : 56 · 1
54 : 56 · 1
55 : 56 · 1
56 : 56 · 1

The right kidney showed nothing abnormal apart from passive congestion, and its ureter was normal. The left kidney was slightly enlarged, of normal shape (weight $6\frac{1}{2}$ ozs.), and of softer consistence than its fellow. The capsule stripped off easily and left a smooth surface much paler than on the right side, and near the lower pole of the kidney were seen a few small, pale, yellow spots. On section, a large cavity, containing soft, cheesy-looking matter, about the size of a damson, was found in the middle of the kidney. The mass is separated from the surface of the cortex by $\frac{1}{4}$ inch depth of cortical tissue. It involves the pelvis, and appeared to be extending towards the upper end of the kidney. A few small, well-defined, yellow, cheesy nodules were found, scattered near the lower end of the kidney. The left ureter is markedly thicker than the right. Its walls feel very firm. In the bladder are found two large, irregularly-oval ulcers, with slightly ragged, thin edges. The first is situated round the urethral orifice, and the second on the posterior wall. Both ulcers are very shallow. The prostate is slightly enlarged. Its shape was normal, and on section it was found to contain a few masses of firm, caseous tissue. The rest of the gland was firm and fibrous. The left vesicula seminalis contained a number of small, soft, cheesy masses, separated by firm, fibrous tissue. The right vesicle was normal. The left vas deferens has thick, firm walls; the right is normal. In the left testis were found cheesy masses in the globus minor and globus major of the epididymis. The body of the testis was normal. The right testis and epididymis were normal.

The patient was a male, aged 45. He was admitted for pulmonary and laryngeal tuberculosis. (See lung M.N. 2834—25 : 56·2, and larynx M.N. 2836—22 : 56·1.)

M.N. 3177. Nov., 1904. Mr. Thorburn.

KIDNEY: Tuberculosis. 51 : 56 · 1
51 : 44 . 2
51 : 53

The kidney has been almost completely disorganized by tuberculous disease. The form of the organ is irregularly lobulated. The outer surface is rough from adhesions, and the thickening of the capsule. The cut surface shows that the kidney has been converted into masses of caseous tissue, each one corresponding to a surface lobule and separated by septa of hyaline-looking fibrous tissue. A glass-rod has been placed in the ureter, round which is a dense mass of cicatricial tissue.

The patient was a girl, aged 14 years. She had suffered from tuberculosis of the lymphatic glands of the neck for some years previously. About Christmas, 1903, she first began to suffer from renal pain and pyuria. A perinephritic abscess formed on the left side, and this was drained Jan. 22, 1904. A urinary fistula persisted, and this was found to lead to an abscess cavity in the substance of the kidney. Nephrectomy was performed Nov. 3rd, 1904. Recovery was uneventful.

M.N. 3255. D.B. 3512. P.M.M. 1896, No. 89. Feb. 4, 1897.
Dr. Graham Steell.

KIDNEY: Tuberculous Pyelonephritis 51 : 56 · 1

The right kidney is much enlarged, and when removed it weighed 24 ozs. It has a cystic appearance, the cysts arising from dilatations of the calyces at the expense of the medulla and cortex. The walls of the cysts are roughened from the tuberculous inflammation and caseation of the tissue. The ureter was converted into a fibrous cord which could not be traced as far as the bladder. The left kidney showed some signs of chronic interstitial nephritis, but was otherwise normal. There were signs of old tuberculous inflammation at the apex, but no recent changes of a tuberculous nature elsewhere, in the lungs. The intestine was free from tuberculosis. The heart was hypertrophied, especially the left ventricle. There were albumen and casts in the urine, and there was some œdema.

M.N. 3691. D.B. 4793. P.M.M. 790. Jan. 9, 1906. Dr. Harris.

KIDNEY: Miliary Tuberculosis. 51 : 56 · 2

The specimen is the left kidney. The right weighed $6\frac{1}{2}$ ozs. and the left 6 ozs., and they showed similar characters. Each is slightly enlarged but of normal shape and consistence. The capsule stripped off easily, leaving a pale, yellowish, mottled, smooth surface, on which may be seen a few miliary nodules. On section, the cortex is moderately thickened, of a pale yellowish colour, with pink mottling and numerous small caseous areas. The lung showed consolidation and cavitation due to tuberculosis.

The patient was a Japanese male, aged 48; he was an acrobat by occupation. In Sept., 1904, he suffered from pleurisy with effusion. In August, 1905, he complained of pain in the right sacral region, which came as suddenly during a performance. Subsequently there were signs of pulmonary tuberculosis. At the autopsy there were found, in addition to pulmonary tuberculosis, tuberculosis of the liver, and caries of the 5th lumbar vertebra.

M.N. 3758. D.B. 4845. P.M.M. 807. Feb. 20, 1906. Dr. Judson Bury.

KIDNEY, URETER and BLADDER: Tuberculosis. 51 : 56 · 1 (44 · 2)
52 : 56 · 1 (55 · 1)
53 : 56 · 1 (55 · 3)

The left kidney is somewhat larger than normal. Its surface is distinctly lobulated, and some of the lobules had a cystic feeling before the kidney was incised. On the cut surface very little of the renal substance remains, but is replaced by two large globular masses of dense caseous material, and several rounded or irregular cavities with comparatively smooth walls lined by soft cheesy substance. These were filled with thin purulent contents. The pelvis is not distended. The ureter shows well-marked, regular thickening, and increased density of its walls throughout. Its lumen is slightly increased, but there are no visible signs of inflammation of the mucous membrane. At the hinder aspect of the bladder are seen several fairly large, though shallow ulcerations of the mucous membrane; the edges of some of the ulcers are distinctly undermined, but they show no thickening. The walls of the bladder were flaccid and felt like wet paper. The left kidney was hypertrophied but otherwise normal.

The patient was a girl about 20 years of age.

KIDNEY: HYPERTROPHY.

M.N. 2866. D.B. 4160. P.M.M. 493. Nov. 10, 1903. Dr. Dreschfeld.

KIDNEY: Intestinal Nephritis affecting a Hypertrophied Kidney. 51 : 62
51 : 53

The kidney is very much enlarged, and weighs 9 ozs. It is elongated, and very firm, and the capsule strips off with moderate difficulty, leaving a pale, granular surface, and showing a few cysts. The capsule adhered to the perirenal fat. On section it was tougher and paler than normal. The cortex is as thick as that of the normal kidney. It shows under the microscope a typical, chronic interstitial overgrowth. (For clinical notes see heart M.N. 2865—12 : 34·1, also see lung M.N. 2969—14·2 : 35·1, and cæcum M.N. 2867—35 : 55·3.)

KIDNEY; MALIGNANT TUMOURS.

M.N. 40.

KIDNEY: Secondary Sarcoma. 51 : 65 · 3

The kidney is somewhat enlarged generally, and is studded with small, rounded masses of tumour growth, the microscopic examination of which shows it to be a mixed-celled sarcoma. The site of the primary growth is unknown.

M.N. 85. D.B. 1597. P.M.M. 1884, No. 229. Oct. 25, 1886. Dr. Simpson.

KIDNEY: Primary Carcinoma. 51 : 66 · 3

The upper two-thirds of the left kidney are occupied by a tumour, whose growth has caused great enlargement of the organ. The outer surface is rough and irregularly nodulated. On section the structure of the tumour shows the presence of a series of alveolar areas enclosed in a fibrous meshwork. Here and there the strands of fibrous tissue show the presence of red pigment.

The patient, a male over middle age, died the day after admission to hospital. There were secondary nodules in the liver and the lungs, and also in the brain. The tumour is probably of supra-renal origin.

M.U. 92. D.B. 259. March 8, 1886. Dr. Morgan.

KIDNEY: Hypernephroma. 51 (47 : 66 · 3)

The specimen consists in a kidney which is slightly granular on the subcapsular surface. The organ is about normal in size. In the middle of the outer border, and projecting well on the surface, is a rounded, definitely encapsuled, solitary nodule about the size of a walnut. The tissue of the tumour has a cheesy, friable appearance. It occupies the whole depth of the cortex.

Microscopically it has the structure of a hyper-nephroma. Tubules of columnar epithelium of a delicate structure are present.

M.N. 93. D.B. 1620.

KIDNEY: Carcinoma of Suprarenal Origin. 51 (47 : 66 · 3)

The organ is enlarged; on its outer surface are several projecting nodules of varying size. On section the renal parenchyma is seen to be the seat of other similar nodules, which on section appear to consist of a fibrous stroma enclosing masses of cellular tissue.

The microscopic examination shows that the tumour is a carcinoma.

M.N. 95. D.B. 1208. P.M.M. 1889, No. 193. Feb. 25, 1891. Dr. Dreschfeld.

KIDNEY: Secondary Lympho-Sarcoma. 51 : 65 · 9

This specimen consists of one half of a kidney. It is considerably enlarged, and of a pale colour. The outer surface is studded with flat, rounded nodules, due to metastatic growths from a primary tumour of the mediastinal lymph glands. The glands of the abdomen were extensively enlarged, but the viscera were not infiltrated. There was a large amount of pleuritic effusion, but the peritoneum was normal.

The patient was profoundly anæmic. There was a history of only a few weeks' illness.

M.N. 96. D.B. 1568.

KIDNEY: Secondary Melanotic Sarcomata. 51 ; 65 · 5

The organ is slightly enlarged, its surface is smooth, and presents numerous dark-brown nodules, varying considerably in size, the larger of which project from the surface. On section the cortex and medulla are seen to contain similar nodules scattered through them.

M.N. 2606. D.B. 3572. Prof. Jones.

RIGHT KIDNEY: Hypernephroma. 51 (47 : 66 · 3)

The organ is enlarged, especially its upper part; the surface is lobulated. On section, the lower half of the specimen is seen to consist of kidney tissue apparently normal, the upper, larger part, is made up of rounded masses of new growth having a distinct fibrous capsule. The central parts of the nodules have a coarsely, granular, disintegrating appearance. The tumour is a cancer of the kidney of supra-renal origin. There is a large variety of tissue arrangement in the tumour. At some places the typical tubular structure is seen, and at others a cellular tissue very like that of a vascular sarcoma.

M.N. 2609. D.B. 3584. Sept. 4, 1897. Mr. Thorburn.

KIDNEY: Carcinoma. 51 : 66 · 4

The specimen shows a kidney entirely replaced by tumour growth; it has a definite outline, and has a slight tendency to nodular formation on the surface. The cut surface indicated the tumour growth to be predominantly cellular in character, and there is a small amount of matrix. There are also areas of irregular softening and extensive areas of hæmorrhage.

Microscopic examination shows that the tumour is composed of columnar epithelium arranged as a lining of gland-like spaces, the walls of which frequently display papillary processes protruding into these cavities.

The patient was a man, aged 48.

M.N. 2614. D.B. 3685. Dr. Wilkinson.

KIDNEY: Rhabdomyo-Sarcoma. 51 : 64 · 1
51 : 65

The disease affected both kidneys. The right formed a large mass weighing 6 lbs. 12 ozs. The left was smaller, and weighed 1 lb. 12 ozs., and part of the normal kidney remains.

Microscopically, the growth consisted of round and spindle cells, with large, wavy, muscle-like elements. Amongst these elements there is a fine, fibrous stroma. There were areas of necrosis through the tumour. There are in some parts of the growth fine duct-like structures, lined by a single layer of cells.

The patient was a child one year old, and the growth had been under observations for 3 months, but evidently had formed distinct tumours soon after birth. (See Kelynack "Renal Growths," page 102.)

M.N. 2615. D.B. 368. P.M.M. 1897, No. 77. Dr. Dreschfeld.

KIDNEY; Melanotic Sarcoma. 51 : 65 · 5

A melanotic sarcoma had formed at the lower end of the left kidney. There are also several smaller nodules scattered through the kidney.

The patient was a woman aged 68. The right eye had been removed 7 years ago for a growth, and she had since then had perfect health up till a few months ago. On admission she suffered from an enlargement of the liver, obviously from tumour growth. There were also a number of subcutaneous nodules, painful to touch. The skull was perforated by a mass of tumour in the right frontal bone. There was a wide extension of these secondary deposits over the body. The patient died of exhaustion.

M.N. 2851. D.B. 4123. P.M.S. 329. July 17, 1903. Mr. Southam.

KIDNEY: Carcinoma of Suprarenal Origin. 51 (47 : 66 · 3)

The kidney is normal in size and in weight. At its lower end is a sessile lobular nodule, the size of a walnut, having a smooth, pale, yellowish surface. It feels cystic. On section the walls are seen to be firm and moderately thick. The contents look like putty, but are shreddy, soft, and friable. The cut surface had a frosted appearance (due to cholesterine?). At the lower and outer aspect, the growth is bounded by the capsule. The adjacent kidney tissue is healthy, and though compressed is not invaded by the growth.

Microscopic examination:—There is a well-marked fibrous stroma, and in its meshes are collections of epithelial cells, in places arranged in a tubular form. It is possible the growth has originated in an adrenal rest, as the cells were very similar to those of the adrenal gland. The cells are extensively pigmented with brown granules, and the pigment gives the iron reaction.

The patient, a male aged 67, died from an accident. There were no symptoms of the tumour.

M.N. 2878. D.B. 4192. P.M.S. 360. Jan. 20, 1904. Mr. Thorburn.

KIDNEY and URETER: Secondary Carcinoma. 51 : 66 · 3
52 : 66 · 3
51 · 1 : 67 · 1

The kidney is of normal size and shape. It is hydronephrotic. The capsule stripped off fairly easily, and left a markedly nodular surface. The nodules average the size of a pea, and are pale yellow, well-defined, circular and firm. The intervening tissue was paler than normal. On section the pelvis was dilated. It held about $\frac{1}{2}$ oz. of clear, colourless, thin liquid. The walls are pale and smooth, and not invaded by tumour. The renal tissue is reduced to a strip averaging $\frac{1}{4}$ inch. The medulla is especially thin. A large number of pale, well-defined nodules, are scattered through the kidney substance. On the ureter is an almond-shaped, firm nodule, $\frac{3}{4}$ inch long. It is situated on the outer part of the wall of the ureter, $\frac{1}{4}$ inch from the pelvis.

Microscopic examination showed the structure to be a spheroidal-celled carcinoma. It was secondary to cancer of the breast. There was found also distinct increase in the interstitial tissue in both cortex and medulla. There were dilatation and degeneration in the kidney tubules. Numerous growths, about the same size, were found in the skin, the dura, and the pericranium, but none in the heart, or lung, or spleen. The liver was studded with them, and the lymphatic glands were widely invaded. Some were in the opposite kidney, and there were many subserous nodules in the peritoneum The cause of death was exhaustion.

The patient was a female, aged 45.

M.N. 3185. Mr. Wright.

KIDNEY: Carcinoma 51 : 66 · 3

The lower $\frac{3}{4}$ of the kidney has been replaced by cancerous growth, which forms a series of irregular, rounded, opaque masses, separated by strands of fibrous tissue and the remains of kidney parenchyma. The pelvis of the kidney is filled with blood-clot.

The patient was a woman aged 44 years. There was a 5 months, history of renal pain and hæmaturia. The kidney was probably movable before the growth of the tumour. The growth extended into the renal veins, but the ureter was not blocked. The kidney was removed by the anterior retro-peritoneal operation on Oct. 25th. Recovery was uneventful.

M.N. 3289. D.B. 4229. P.M.M. 634. Sept. 23, 1904. Dr. Dreschfeld.

KIDNEY: Carcinoma of Suprarenal Origin. 51 (47 : 66 · 3)

The kidney is very much enlarged, and protruded forwards from the left lumbar region. Its shape is fairly well retained, and there is slight lobulation. It weighs 25 ozs., and feels firm but not hard. The capsule strips off easily, and leaves a smooth surface, somewhat paler than normal, with here and there a few small, soft, white patches. There was a large mass of enlarged glands in the hilum weighing 8 ozs. On section the kidney is almost completely occupied by a mass of soft, cream-coloured new growth, which is the seat of very extensive hæmorrhage, and in one part, at the centre, there is a rounded mass of blood-clot, the size of a walnut. The only portions of kidney tissue discernible are (1) a thin streak at its lower pole, and (2) at the upper pole a strip $\frac{1}{2}$ inch in depth and $2\frac{1}{2}$ inches long; these portions of renal tissue are normal but pale. The pelvis is filled and distended with a mass of growth similar to that in the kidney.

Microscopic section shows the typical structure of an adrenal carcinoma.

The patient was a male, aged 43. The symptoms pointed to paralysis of spinal origin. There was a trace of albumin in the urine. There were secondary growths in the lower dorsal vertebræ and 10th left rib, in the lungs, and in the left lumbar glands. The left adrenal was not found; it was apparently completely incorporated in the tumour. The patient died of cystitis secondary to spinal compression.

M.N. 3584. D.B. 4707. Oct. 18, 1905. Dr. Melland.

KIDNEY: Lympho-Sarcoma. 51 : 65 · 9

About the middle of the organ is situated a small, round, fleshy tumour, the size of a marble; it is fairly well defined. Apart from this the kidney is normal. The kidney was less involved than the pancreas, liver, or intestine in this case, but it was uncertain where the primary growth had formed. (See liver M.N. 3582—36 : 65·9, pancreas M.N. 3583—37 : 65·9, and small intestine M.N. 3581—35 : 2 : 65·9.)

M.N. 3680. D.B. 4772. Dec. 9, 1905. Mr. Platt.

KIDNEY: Endothelioma. 51 : 66 · 5

The left kidney presents at the lower pole a distinct tumour mass about the size of an orange. The tumour has a definite capsule round a considerable part of its circumference, and the mass is divided into two areas. The lower area shows hæmorrhage and necrosis occurring in a tissue of myxomatous appearance; the upper part of the tumour is seen invading the kidney, and consists of a zone of white, cellular tissue, which shows little hæmorrhage or degeneration.

Microscopic examination demonstrates that the tumour tissue consists of cuboidal cells occurring in columns and in tubules, some of which contain blood, but the majority of which are without contents. The cuboidal cells are probably endothelial.

The patient was a man, aged 58 years. The tumour had been noticed about three months, and during that time he had suffered from pain in the loin and frequency of micturition. His general health had been poor, and he had lost a stone in weight. Nephrectomy was performed Dec. 9, 1905. Recovery was uneventful.

KIDNEY: CYSTS, INCLUDING HYDRONEPHROSIS AND PYONEPHROSIS.

M.N. 10. Sir William Roberts.

KIDNEY: Congenital Cystic Disease. 51 : 67 · 3

Both kidneys were much enlarged. Each consists of a congeries of cysts varying considerably in size. The cyst walls are smooth. The contents vary some being a clear fluid, others a yellowish débris, others a brownish-red pasty débris. The calyces in both organs appear long and narrow.

M.N. 11.

KIDNEY: Congenital Cystic Kidney. 51 : 67 · 3

The kidney is much enlarged and consists of a congeries of cysts varying considerably in size. A particularly large one is situated in the lower part of the specimen. The cyst walls are smooth. The contents vary, the majority being a yellowish pasty débris, others a clear fluid, and others a brownish débris. Practically the whole of the normal secreting tissue has been replaced by cysts, and the remainder has undergone fibroid changes, and has a very dense appearance. There is no distinction between cortex and medulla. The cysts are unilocular, and those at the surface of the organ have thin translucent walls. The calyces are long and narrow. The pelves and ureter are not dilated.

M.N. 12. Sir Wm. Roberts.

KIDNEY: Congenital Cystic Disease. 51 : 67 · 3
51 · 1 : 67 · 1

The kidney is very much enlarged, but in spite of the great growth it retains the form of the normal organ. It consists of a congeries of thin-walled cysts varying very considerably in size and containing clear fluid or a yellowish or brownish débris. The hilum of the organ is occupied by a greatly distended pelvis.

M.N. 13.

KIDNEY: Congenital Cystic Disease. 51:67·3

The kidney is much enlarged, and consists of a congeries of thin-walled, variously sized cysts, with but little intervening renal tissue. The contents of the cysts vary, being a clear fluid in some, in others a yellowish, creamy, or brownish débris.

M.N. 16. D.B. 156. Nov., 1885.

KIDNEY: Large Retention Cyst. 51:67·1

The kidney is slightly enlarged, and somewhat flattened. The surface is lobulated, the anterior surface more markedly than the posterior. The lower end of the kidney is occupied by a thin-walled cyst, about 1 inch in diameter. It projects from the surface of the organ, and apparently involves the superficial part of the cortex of two lobules. On the external border of the organ there is a shallow depression about $\frac{1}{4}$ inch in diameter, corresponding to a ruptured cyst, and over other parts of the surface there are a few depressions about the size of pin-heads.

M.N. 18. D.B. 406. Dr. Lloyd Roberts.

KIDNEY: Hydronephrosis (Secondary to Uterine Tumour). 51·1:67·1

The organ is somewhat enlarged and is divided by sulci into a number of very distinct lobules. The pelvis and ureter are considerably dilated.

M.N. 19. D.B. 1307. Dr. Martin.

KIDNEY: Double Hydronephrosis. 51·1:67·1
52:27
53:62

The pelves were dilated and the cortices thinned out to $\frac{1}{8}$ inch at the thickest part. The ureters were widely distended. At the bladder they became suddenly constricted and remained very narrow in the walls of the bladder. The bladder was hypertrophied although there was no obstruction to the outflow of urine.

The patient was a male, aged 18. He died during chloroform administration for a surgical operation. (See *Transactions of the Pathological Society of Manchester*, 1891, p. 47.)

M.N. 20. Dr. Cullingworth.

KIDNEY: Hydronephrosis. 51·1:67·1
51:41

The organ is much enlarged and markedly lobulated. The renal parenchyma has been almost entirely destroyed, and its place is occupied by large, smooth-walled cysts, communicating with a much dilated pelvis which has been laid open. (See *British Medical Journal*, 1882.)

M.N. 22. Dr. Dreschfeld.

KIDNEY: Hydronephrosis. Fibrosis. 51.1:67·1
51:41

The kidney is somewhat enlarged; on the surface there are a number of small collapsed cysts. The renal parenchyma is much atrophied, the great bulk of the organ being occupied by cystic dilatations of the calyces and pelvis. The inner surfaces of the cysts are lined by a smooth, serous-like layer. The pelvis is dilated, and the ureter also, but to a less extent.

M.N. 23.

KIDNEY: Hydronephrosis. 51·1:67·1
51:41

The organ is normal in size, but the renal parenchyma is markedly atrophied, its place being occupied by cystic cavities resulting from dilatation of the calyces. The pelvis is dilated and to a less extent the ureter also.

M.N. 24. Mr. Jordan.

KIDNEY: Hydronephrosis. 51·1:67·1
51:41

The kidney is shrunken, distorted and small, the renal substance being atrophied, and its place occupied by irregular, smooth-walled cystic dilatations of the calyces.

M.I. 26.

KIDNEY: Pyonephrosis; Stricture of Ureter at its junction with Pelvis. 51·1:67·1 52:25·1

The organ is slightly enlarged, the renal parenchyma is atrophied, and its place occupied by cysts communicating with the dilated calyces and pelvis.

M.N. 145. Mr. F. A. Southam.

KIDNEY: Hydronephrosis 51·1:67·1

The organ is normal in size. On section the medulla is seen to be atrophied, its place being occupied by the dilated calyces. The pelvis is also dilated. The dilatation in this case is of moderate extent, and was secondary to a papilloma of the bladder.

M.N. 153. Mr. F. A. Southam.

KIDNEY: Hydronephrosis. 51·1:67·1

The organ is diminished in size. On section the renal parenchyma is seen to be considerably atrophied in consequence of dilatation of the pelvis and calyces, a narrow zone of cortical tissue alone remaining. There was very great dilatation of the ureter, which was blocked at its vesical orifice by a tumour (epithelioma).

M.N. 159. Mr. Southam.

KIDNEY: Hydronephrosis. 51·1:67·1

The organ is diminished in size. On section the renal parenchyma is seen to be considerably atrophied, the medulla in particular, whilst the calyces, pelvis and ureter are dilated. The cause of the dilatation was obstruction of the vesical orifice of the ureter by a tumour. (See bladder M.N. 158—53:64·6.)

M.N. 181. D.B. 1044B. P.M.S. 1887, No. 193. April 2, 1890. Mr. JONES.

KIDNEY: Hydronephrosis. 51·1:67·1

The kidney is enlarged and weighed 6½ ozs. The surface is smooth and pale and shows slight lobulation. On section, the cortex is not diminished, and it was pale and soft. The pelvis is dilated to the size of an orange and was filled with turbid urine. The ureter was much dilated.

The patient was a male, aged 52, who suffered from carcinoma of the prostate, with secondary deposits in lymph glands and kidneys. (See bladder, M.N. 180—53:66·3.)

M.N. 2483. D.B. 3009. Feb., 1895.

KIDNEY: Serous Cyst. 51:67

The kidney is normal in size and shape. On section a large cyst is seen occupying a space between alternate Malphigian pyramids, about equal in size to a pyramid. The cyst has a smooth serous-looking lining, its walls are fasciculated owing to the formation of diverticula extending between adjacent pyramids. There is no apparent connection between the cyst and the pelvis. The calyces are unusually narrow and elongated, forming branching tubes resembling blood-vessels. The kidney otherwise appears normal.

M.N. 2511. D.B. 1619.

KIDNEY: Primary Cystic Disease. 51:67·3

The kidney is enlarged, and consists of a congeries of cysts, varying considerably in size. The cyst walls are smooth. The contents consist of brown or yellowish pasty debris, or clear fluid. The occurrence of cysts in both cortex and medulla should be noted. In this case the large cysts are in the area of the medulla. The disease is not advanced. There is a good deal of intercystic tissue, but it has not the fibroid appearance which is shown in more advanced cases. In some of the smaller cysts the colloid contents are still present.

M.N. 2527. D.B. 1592. P.M.M. 1881, No. 219. Mar. 10, 1884. Dr. Morgan.

KIDNEY: Congenital Cystic Disease. 51 : 67 · 3

Both kidneys are enlarged: weights—right kidney, 15 ozs.; left kidney, 1 lb. 5 ozs. Each consists of a congeries of cysts, varying considerably in size. The cysts have thin, smooth, serous-looking walls, which in the larger are fasciculated on their inner aspect. The calyces are long and narrow.

The patient was a woman of middle age. Old distension marks were found over the abdominal wall. The body was well nourished. The peritoneal cavity was normal. There was some thickening of the pia mater in the frontal region. The cerebral fluid was increased in amount and there were areas of slight degeneration in the blood-vessels. The inner surface of the skull showed numerous depressions.

M.N. 2595. D.B. 3100. P.M.M. 1894, No. 154. March 18, 1895.
Dr. Graham Steell.

KIDNEY: Retention Cysts. 51 ; 67 · 1

The left kidney is somewhat enlarged, and weighed 9 ozs. The surface is slightly granular. The kidney shows several clear, smooth-walled cysts of various sizes; the largest of which is the size of a goose egg, and is situated at the upper pole. The cortex appears of normal size. Similar cysts, though not so large, were found in the right kidney.

The patient was a male, aged 65, who died from cerebral hæmorrhage. The heart and aorta were healthy.

M.N. 2616. D.B. 3735. P.M.M. 1899, p. 73. Oct. 27, 1899.
Dr. Graham Steell.

KIDNEY; Congenital Cysts. 51 : 67 · 3

Both kidneys are much enlarged and the seat of variously-sized cysts involving the entire organs. The cysts are unilocular and thin-walled. The contents of the cysts were a greenish-yellow fluid containing debris.

The patient was a male (middle-aged), who died from uræmia. (See kidney M.N. 3402—51 : 67·3.)

M.N. 2784. D.B. 3689. Dr. Wightwick.

KIDNEY: Congenital Cystic Kidney from a Fœtus. 51 : 67 · 3
52 : 27
53 : 12 · 3

The specimen shows the kidneys, ureters, and the bladder of a fœtus. The kidneys present on the surface a large number of thin-walled cysts whose presence has distorted the outline of the organ. The right kidney is the larger of the two, and the right ureter is irregularly dilated. A portion of the fœtal bladder is seen with the remains of the urachus at its summit.

M.N. 2793. D.B. 4282. Feb. 8, 1904. Mr. Milner.

KIDNEY: Cyst. Bifid Ureter. 51 : 67 · 1
52 ; 12

A large cyst occupies the upper and middle portions of the kidney. It extends from the capsule to the pelvis, and apparently represents one or two of the Malpighian pyramids. The ureter is bifid.

M.N. 2854. D.B. 4127. P.M.M. 451. July 31, 1903. Dr. Graham Steell.

KIDNEY: Congenital Cysts. 51 : 67 · 3

The kidneys are very much enlarged, and the glandular tissue is to a great extent replaced by cysts of various size. The cysts contained a turbid brown fluid. In the intercystic strands of tissue there were found, on microscopic examination, a fair number of normal tubules and glomeruli. The fibrous tissue is much increased also, and is very cellular.

The patient, a male, aged 38, died from uræmia.

M.N. 2932. Sept., 1900. Mr. Stanmore Bishop.

KIDNEY: Pyonephrosis. 51 : 67 · 1 (54 · 5)

The kidney has been reduced to a large pus-containing cyst-like structure, the half of which is shown in the specimen. A glass rod is inserted into the ureter.

The history of the case is as follows: Thirteen years before admission the patient, a man, aged 40, had noticed pus in the urine, but this disappeared after three weeks. Five weeks before admission he had begun to suffer pain and a swelling appeared in the right side extending from the ribs to the iliac fossa. The urine had a little pus in it; there was no blood, and no tubercle bacilli could be found. The right leg was œdematous. At the operation five pints of odourless pus were aspirated from the abscess before the capsule was removed. The patient died the same evening.

Microscopical examination of the wall of the abscess shows the presence still of one or two tubules lined by cubical epithelium lying in a vascular fibrous tissue with a large amount of round-cell exudation.

M.N. 2975. Dec., 1904. Mr. Wright.

KIDNEY; Congenital Cystic Disease. 51 ; 67 · 3
51 : 42 · 7

A large mass of cysts has replaced the kidney, but the specimen still retains something of the form of that organ. The outer surface is a rough fibrous layer on which various cysts are projecting. On section there is seen to be no distinction between cortex and medulla, but the mucous membrane of the pelvis can still be seen in practically normal condition. The rest of the kidney is replaced by innumerable cysts with thin walls and smooth lining, and colloid contents which may be discoloured by blood. The pelvis of the kidney is not dilated.

The patient was a woman, aged 45 years. She had suffered from a movable kidney on the right side for fourteen years. Three weeks before operation she strained herself, and fourteen days later a lobulated tumour was found in the right lumbar region. There were no urinary symptoms. Nephrectomy was performed December 19, 1904. The other kidney was felt to be slightly enlarged. Recovery was uneventful.

M.N. 2976. Mr. J. W. Smith.

KIDNEY; Hydronephrosis. 51 : 27
52 : 12

The kidney is in a condition of hydronephrosis. To the left of the specimen is seen the very much narrowed ureter, projecting from the side of the very much dilated kidney pelvis. The kidney is greatly reduced in size by atrophy following dilatation of the calyces, and the cortical substance remaining is in a condition of fatty degeneration. The outer surface of the kidney shows considerable granularity. At the lower end of the incision in the kidney its substance is somewhat broken up, and here was the site of the opening into the kidney which formed the urinary fistula.

The patient was a woman, aged 39 years. In August, 1904, a large abscess extending from the loin to the umbilicus was opened and drained, and a urinary fistula was left. On January 14, 1905, nephrectomy was performed. The kidney was found lying over the brim of the pelvis.

M.N. 3204. D.B. 3928. Aug. 21, 1901. Mr. Platt.

KIDNEY: Hydronephrosis. 51 : 67 · 1

The kidney is converted into one large multilocular cyst. Each of the loculi being completely separated from the one adjoining, except by one rounded opening. The condition has arisen by a gradual process of dilatation of the pelvis of the kidney with accompanying atrophy of the parenchyma of the organ; so that what remains is a cyst-like structure with a fibrous wall lined by epithelium.

The patient was a man, aged 45 years. There had been no symptoms of the condition until six days previous to the operation. The tumour contained five pints of clear straw-coloured fluid. A large calculus was found blocking the upper part of the ureter and was removed. Recovery was complete.

M.N. 3259. D.B. 3966. Dr. Ashe.

KIDNEY: Congenital Cystic Disease. 51 : 67 · 3

The kidney is studded with cysts of various sizes with smooth walls and colloid contents. The kidneys are not greatly enlarged, and the cystic condition is more developed in the liver of the case. (See liver M.N. 3260—36 : 67·3.)

The patient was an old man who, during life, showed no symptoms pointing to this disease.

M.N. 3349. D.B. 4387. P.M.M. 707. May 6, 1905. Dr. Dreschfeld.

KIDNEY: Chronic Interstitial Nephritis, Serous Cyst, Cloudy Swelling. 51 : 67 · 1
51 : 53
51 ; 42 · 1

The specimen is the right kidney, and weighs $3\frac{1}{2}$ ozs. At its lower end is a rounded, unilocular cyst, about the size of a walnut, with thin walls and clear contents. The surface of the kidney is granular and irregular. The cortex is somewhat thinned, and the epithelium is opaque and cloudy. (See liver M.N. 3350A—36 : 53, and spleen M.N. 3350B—45 : 53·1.)

M.N. 3402. D.B. 3735. P.M.M. 1899, p. 73. Oct. 27, 1899.
Dr. Graham Steell.

KIDNEYS: Congenital Cystic Disease. 51 : 67 · 3

The specimen consists of the kidneys and their blood-vessels, and the adrenals. The kidneys show great enlargement due to the presence throughout them of cysts of various sizes, the contents of which consist of colloid material variously coloured. The wall of the aorta was diffusely thickened. (See kidney M.N. 2616—51 : 67·3.)

M.N. 3413. D.B. 4631. P.M.S. 456. June 29, 1905. Mr. Thorburn.

KIDNEY; Simple Cyst. 51 : 67 · 1

The kidney is the seat of a large clear thin-walled cyst which occupies its middle two-fourths. It is situated mostly on the anterior aspect. The contents are thin and slightly turbid. The pelvis is not dilated. The kidney apart from the cyst appears normal. It weighed 13 ozs. The other kidney had a small clear cyst near its upper pole.

The patient, a male, aged 50, died as a result of fracture of the skull with cerebral laceration.

M.N. 3431. D.B. 3747. P.M.M. 1899, No. 184. Dr. Harris.

KIDNEYS: Cystic Malformation (Congenital) from a Case of Defective Development (Infantilism?). 51 : 67 · 3 51 ; 12

The left kidney is enlarged, firm, and pale in colour; the cortex is relatively increased in amount, and the capsule strips off easily. The right kidney is a mass of fairly large, smooth-walled cysts filled with clear colloid material or yellowish transparent fluid.

The patient was a male, aged 21. He was 4 ft. 4 in. in height. He was ill-developed generally. There was deficiency of the thyroid gland, which was of a small horseshoe shape. Bones, muscles and blood-vessels were imperfectly developed, and also the skin and hair. There was lardaceous infiltration in the liver and spleen. He suffered for three years from cramp in the limbs, dizziness and diarrhœa. There were some superficial ulcers in the intestine. Death occurred from heart failure. (See heart M.N. 2717—12 : 17·1.)

M.N. 3618. D.B. 4773. Dec., 1903. Dr. Fothergill.

KIDNEY; Calculus and Pyonephrosis. 51·1:67·1
51:43

The kidney shows considerable enlargement. The glandular tissue has disappeared and the organ consists of numerous intercommunicating loculi, each of which corresponds to an expanded calyx. The loculi are partially separated by thick fibrous septa and present a smooth lining. In the lowest cavity are seen three irregularly-shaped darkly pigmented calculi, which occupied the pelvis of the kidney.

The patient was a woman, aged 34 years. Two years previously she had suffered from puerperal septicæmia. There was a history of pyuria, and of a swelling in the right lumbar region of twelve months' duration. Nephrectomy was performed December, 1903. The patient made a good recovery.

KIDNEY: GENERAL NUTRITIONAL DISEASES.

M.N. 2890. D.B. 4219. P.M.S. 381. June 16, 1904.
Dr. Harris and Mr. Southam.

KIDNEYS and SPLEEN: Lymphatic Leukæmia. 51 : 81 · 4
45 : 81 · 4
51 : 33 · 2

The specimen consists in the half of each kidney and half of the spleen. The kidneys are markedly enlarged, and their shape tends to be globular. The capsule is thickened and opaque. It pulls off easily, but brings away a considerable amount of kidney tissue with it. The surface is granular, of a yellowish-grey colour, and there are numerous punctiform hæmorrhages scattered through it. On section the cortex is seen to be distinctly thickened, yellow-brown in colour, with numerous small hæmorrhages. There is friable red blood-clot in the pelvis.

Microscopic examination shows that the capsule is thickened slightly and is highly cellular. The cortical capillaries are engorged. There are numerous small hæmorrhages, and extensive infiltration of leucocytes, and separation of the tubules. The epithelium is granular.

The spleen weighs 14½ ozs. Its surface is smooth and its consistence tough. It is of a pale green colour with brownish mottling. Microscopically it is seen that the pulp is packed with lymphocytes. There is no increase of stroma. There is a large number of leucocytes in the blood-vessels. (See heart M.N. 2891—12 : 33·2.)

M.N. 3434. D.B. 4373. P.M.M. 710. April 26, 1905. Dr. Reynolds.

KIDNEY: Corrosive Sublimate Poisoning. 51 : 87 · 5

The shape of the kidney was normal, and there was moderate increase of size. The capsule stripped off easily, leaving a smooth, pale pinkish-yellow surface. On section the cortex was found slightly thickened, very pale, and of a pinkish-yellow colour. The medulla is somewhat pale.

Microscopic examination showed general marked congestion with

hæmorrhage underneath the capsule. The necrosed epithelium of the tubules is hyaline or partly calcified. In many tubules the epithelium has been denuded. There is no proliferation of the matrix or invasion by leucocytes. The collecting tubules in the medulla contain many hyaline casts, but the epithelium here is much more intact than in the cortex. (See stomach, M.N. 3567—34 : 29·1, small intestine M.N. 3590—35 : 2 : 29·1, and large intestine M.N. 3424—35 : 4 : 29·1.)

M.N. 3593. D.B. 4769. P.M.M. 783. Dec. 9, 1905. Dr. Graham Steell.

KIDNEY: Interstitial Nephritis in a case of Lead Poisoning. 51 : 87·2
51 : 53

Each kidney was slightly smaller than normal and weighed 4 ozs. They were of normal shape and consistence. The capsule stripped off easily, leaving a very finely granular surface of a pale greyish-yellow colour, on which are a few minute clear cysts. The grooves between the granulations are deep red. On section it cut normally. The cortex is distinctly thinner than normal, and shows a well-marked mottling of yellow and red throughout. The medulla is of a mottled purple colour.

Microscopically, there is seen a general overgrowth of fibrous tissue, and this affects a large number of glomeruli. The epithelium of the tubules shows cloudy swelling, and in many cases disintegration and atrophy. Many hyaline casts are seen in the collecting tubules.

The patient was a male, aged 41, who suffered from chronic lead poisoning. He died from acute pericarditis. (See heart M.N. 3594—11 : 54·2.) At the autopsy the metatarso-phalangeal joint of the great toe was normal, but the right knee joint showed some erosion of the cartilage over the femur and a slight increase of turbid colourless synovial fluid.

URETER: CONGENITAL MALFORMATIONS.

M.N. 7. D.B. 965. Dec. 13, 1889. Mr. E. C. Bowden.

KIDNEY, URETERS, BLADDER: Malformation. Double Ureter. 51 : 12
52 : 12

In the right kidney the surface is slightly lobulated. The right ureter commences in a double pelvis and is double to within one inch of the bladder, and both divisions and the lower single part appear thickened and dilated. There is only one right ureteric orifice. The left ureteric opening is apparently normal.

M.N. 2488. D.B. 2213. Dr. Dreschfeld.

URETERS: Bifid. 52 : 13

Both ureters are double throughout their entire extent. They have separate openings into the bladder. The kidneys are somewhat larger than normal.

M.N. 2599. D.B. 3241.

KIDNEY (right), URETER and PORTION OF BLADDER WALL: Malformation. Lobulation. Double Pelvis, Divided Ureter. 52 : 12

Kidney:—Normal in size; the surface is divided into 16—18 lobules by furrows which are deeper and more distinct on the anterior than on the posterior surface. Pelvis:—Double, and from each a distinct ureter arises. These apparently join about $3\frac{1}{2}$ inches above the bladder, but open into that viscus by two distinct openings.

URETER: CIRCULATORY DISORDERS.

M.N. 3777. D.B. 4871B. March 9, 1906. Mr. Platt.

URETER: Blood-Casts. 52 : 46 (: 33)

The specimen consists of two long cylindrical casts of the ureter composed of blood-clot. The clots were passed per urethram on the day following an operation for the exploration of a carcinoma of the kidney.

URETER: MALIGNANT TUMOUR.

M.N. 17. D.B. 1225. P.M.M. 1889, No. 360. March 24, 1891.
Dr. Dreschfeld.

URETER: Endothelioma (Secondary). 52 : 66 · 5
51 · 1 : 67 · 1

This specimen is the right kidney. The organ is not much enlarged, but the pelvis is greatly dilated. The calyces have been enlarged at the expense of the parenchyma. Around the commencement of the ureter there is a layer of endothelioma about $\frac{1}{8}$ inch thick, and this has apparently caused the obstruction to which the hydronephrosis is due.

The patient was a female, aged 38, and gave a history of gastric symptoms, vomiting, &c., for twelve months before admission. She suffered also from bronchitis, œdema of the lungs, and ascites for which she had been tapped several times.

On post mortem examination a large mass of new growth was found in the pelvis, matting the structures together; the peritoneum was studded with nodules; the liver was infiltrated with the growth; it had extended also to the pleura and pericardium and mediastinal lymph glands; but it had not invaded the lungs. (See liver M.N. 311—36 : 66·5.)

URINARY BLADDER: MECHANICAL LESIONS.

M.N. 101. D.B. 1687.

BLADDER: Diverticula. 53 : 27 · 1

This specimen shows in the posterior and lateral walls of the bladder three rounded openings which are the mouths of small diverticula.

M.N. 103. D.B. 1635.

BLADDER: Diverticulum. 53 : 27 · 1

The specimen shows the bladder, ureters, and urethra. The bladder is not much dilated. Its walls are hypertrophied, and on the right side there is a round opening about the size of a sixpence, by which the bladder communicates with a thin-walled diverticulum almost half its own size. The walls of this cavity are apparently fibrous, resembling a thickened dura mater in appearance.

M.N. 104. D.B. 1650.

BLADDER: Sacculation. 53 : 27 · 1

The specimen shows the bladder with its sacculus, and with the two ureters, the right vas deferens and vesicula seminalis. The prostate has been cut across, and in the middle of the surface of section the opening of the urethra can be seen. To the left of the prostate lies the sacculus. The wall of the sac is thinner than the wall of the bladder, and its cubic capacity is considerably greater. The wall of the bladder is hypertrophied. No history of this case can be obtained.

Microscopic examination showed the walls of the saccule to be composed almost entirely of fibrous tissue.

M.N. 106. D.B. 1136. Dr. Dreschfeld.

BLADDER; Rupture from Traumatism. 53 : 21 · 7

At the upper part of the viscus there is a long rent laying open the bladder for about three inches. The viscus itself is thin and dilated.

M.N. 108. Mr. Heath.

BLADDER: Rupture 53 : 21 · 7

The bladder is laid open from the front, showing the rupture at the fundus. The walls of the organ are somewhat hypertrophied, and the mucous membrane thickened, showing chronic inflammatory changes. Near the fundus an irregular vertical rupture is seen, about an inch in length; through the upper part a rod is passed. The rupture is well seen on both surfaces, and beneath the serous membrane some slight effusion of blood is visible. In the recent condition the mucous membrane showed some ecchymoses in the region of the wound.

M.N. 2459. Mr. E. Lund.

BLADDER: Foreign Body. 53 : 28

Piece of ivory removed from the bladder of a male, aged 24, after five months' detention. The surface of the ivory shows a deposit of phosphates.

M.N. 2461.

BLADDER: Foreign Body. 53 : 28

Portions of a rubber catheter removed from the bladder by a lithotrite and urethrotomy.

M.N. 2462. Oct. 8, 1875.

BLADDER: Foreign Body. 53 : 28

Portion of a rubber catheter removed from the bladder by a lithotrite and urethrotomy.

M.N. 2464. Mr. E. Lund.

BLADDER: Foreign Body. 53:28

Piece of india-rubber tubing from the bladder.

M.N. 2703. D.B. 3585. P.M.S. 1896, No. 109. Sept. 14, 1897.
Mr. T. Jones.

BLADDER: Rupture. 53:21

The organ is laid open, a piece of the anterior wall having been removed. The fundus of the organ is the seat of a curved rupture which has involved the serous (peritoneal) coat. The edges of the rupture have been brought into apposition by a continuous cat-gut suture.

The patient died from acute peritonitis. The bladder had been ruptured by a trauma during a period of alcoholic intoxication.

URINARY BLADDER: CIRCULATORY DISTURBANCES.

M.N. 151. Mr. Southam.

BLADDER: Blood Clot. 53:33

The specimen shows blood clots passed per urethram from a man, aged 48, suffering from villous tumour of the bladder.

M.N. 161. Mr. F. A. Southam.

BLADDER: Blood Clot. 53:33

A large mass of blood clot, decolourised by spirit, removed from the interior of the bladder in a case of sarcoma of the prostate. (Specimen No. 160—53:65·3.)

URINARY BLADDER: RETROGRESSIVE DISORDERS INCLUDING CALCULI.

M.N. 116.

BLADDER: Calculus. 53 : 43

The bladder itself shows some swelling and irregularity of the mucosa in its lower half, and in the neck lies a conical calculus with its apex impacted in the inner mouth of the urethra.

The patient was a child.

M.N. 117.

BLADDER: Calculus. Hypertrophy. 53 : 43
53 : 62

The wall of the bladder is somewhat hypertrophied. The cavity is not dilated, but is almost completely occupied by a large, rounded calculus, which has a warty surface and a yellowish-brown colour. In shape it corresponds to the contour of the bladder. It is probably composed of urates.

There is no history of the case.

M.N. 2138 to 2210. Mr. G. Southam.

BLADDER: Calculi. 53 : 43

A collection of calculi chiefly from the urinary bladder.

M.N. 2211. Mr. Heath.

VESICAL CALCULUS Composed of Oxalate of Lime. 53 : 43

The outer portion of the concretion consists of a number of irregular-shaped excrescences presenting a "petrified" appearance. The cut surface shows a central, smooth, uniformly-deposited, light-coloured area and an outer laminated portion, which presents numerous spaces free from deposit. The central portion is composed of pure uric acid. In the outer layers calcium oxalate forms the chief constituent. Carbonates and phosphates are absent. There is an excessive quantity of proteid framework.

The patient was a male, aged 11 years.

M.N. 2212 to 2248. Mr. Heath.

CALCULI. 53 : 43

M.N. 2215. Mr. Heath.

VESICAL CALCULUS Composed of Uric Acid. 53 : 43

The concretion is fawn-coloured, about the size of a small almond. The surface is smooth and the laminæ of deposit are distinctly visible. It consists almost entirely of uric acid, the remaining portion being composed of urates.

The patient was a boy, aged 3 years.

M.N. 2218. Mr. Heath.

VESICAL CALCULUS Composed of Uric Acid, Urates, Carbonates, Phosphates. 53 : 43

The concretion consists of a central pale and uniform nucleus, an intermediate brown-coloured zone, irregularly laminated and porous externally, and a peripheral area of a chalky appearance. The nucleus is composed of uric acid, with a slight admixture of urates and carbonates. The intermediary portion consists of urates, and the outer zone contains magnesium and calcium phosphates.

The patient was a man, aged 27 years.

M.N. 2221. Mr. Heath.

VESICAL CALCULUS Composed of Calcium and Magnesium Phosphate. 53 : 43

The oval, pale-brown concretion presents a rough outer surface. The cut surface shows a number of irregularly-shaped spaces, but distinct laminæ are absent. The stone consists of calcium and magnesium phosphate. Uric acid, oxalates and carbonates are not demonstrable. The colour is due to the excess of pigmented proteid framework.

M.N. 2223. Mr. Heath.

VESICAL CALCULUS Composed of Uric Acid, Urates and Phosphates. 53 : 43

The concretion is oval in shape and of a drab-brown colour. The central portion is of lighter colour and looser texture. The laminæ of the peripheral portion are well defined. On the external surface there are a number of small knobbed protuberances and a thin film of chalk-like deposit. The nucleus is composed of almost pure uric acid. The peripheral portion consists of urates, together with a trace of phosphates.

The patient was a man, aged 65, who recovered from the operation for removal of the calculus, but died subsequently from hemiplegia.

M.N. 2224. Mr. Heath.

VESICAL CALCULUS Composed of Carbonates and Phosphates of Calcium. 53 : 43

The concretion presents a dead-white chalky appearance, and is very friable. It consists largely of carbonate of calcium. Calcium phosphate is present to a less degree. There are traces of magnesium also.

The patient was a male, aged 65 years.

M.N. 2237. Mr. Heath.

VESICAL CALCULUS Composed of Oxalate of Lime, Uric Acid, Phosphates. 53 : 43

The concretion is heavy and very hard. One side is flattened and smooth, and the other covered with roughened excrescences. The amount of proteid framework is very small. Oxalates of lime form the chief constituent, small amounts of urates and phosphates of calcium and magnesium being also present. Carbonates are absent.

The patient was a male, aged 6 years.

M.N. 2238. Mr. Heath.

VESICAL CALCULUS Composed of Oxalate of Lime and Uric Acid. 53 : 43

The calculus is very hard and dense. The surface is rough, crystalline in appearance, and covered with knobbed protuberances. The cut surface exhibits a central light-coloured area surrounded by layers of alternate light and dark deposit, and an outer uniformly dark periphery. The nucleus consists of practically pure uric acid. The adjacent layers contain uric acid and calcium oxalate, a small quantity of calcium carbonate and a large percentage of cells and framework of proteid material.

The patient was a male, aged 27.

M.N. 2243 Mr. Heath.

VESICAL CALCULUS Composed of Phosphates of Calcium and Magnesium, and Carbonates of Calcium and Magnesium. 53 : 43

The concretion is smooth, white, and friable in appearance. The stratification is well marked. The centre is white and consists of earthy phosphates; it is surrounded by a darker, denser zone. Chemically, the concretion consists of the phosphates and carbonates of calcium and magnesium.

The patient was a man, aged 57, upon whom lateral lithotomy was performed, and four and a quarter ounces of similar calculi removed.

M.N. 2244. Mr. Heath.

VESICAL CALCULUS Composed of Cystin. 53 : 43

The concretion presents a peculiar greenish colour and its surface is crystalline. The cut surface shows a similar coloration; it cut like hard stearin. The calculus consists of cystin, together with a slight admixture of pigment. Heated on platinum it burnt with a pale yellow flame, and left only a minute trace of residue. It was soluble in ammonia and deposited therefrom in the well-known hexagonal pale green crystals.

The patient was a male, aged 27 years.

M.N. 2245. Mr. Heath.

VESICAL CALCULUS Composed of Uric Acid, Urates and Calcium Oxalate. 53 : 43

The calculus presents externally a number of conically-shaped masses arranged in groups of three or four. The outer surface is covered with a film of slaty-brown material; the middle zone, which comprises the greater portion of the calculus, is brown in colour, and uniform in appearance. The nucleus is small, dark and porous. The excrescences are composed of uric acid, urates, and a small quantity of calcium oxalate. In the lighter-coloured patches there are traces of phosphates. The remainder of the calculus consists of uric acid and urates.

The patient was a man, aged 35 years.

M.N. 2248. Mr. Heath.

VESICAL CALCULUS Composed of Urates and Earthy Phosphates. 53 : 43

The concretion is hard, and dense in texture. Externally, there are numerous small, smooth light-coloured projections. The cut surface shows the calculus to consist of a uniformly pale centre, around which there is a ring of darker appearance with an outer white covering. The calculus consists of urates and earthy phosphates. Oxalates are not present, but there is a considerable quantity of calcium. Carbonates are absent.

From a case of stricture of the urethra and vesical calculus. The stricture was dilated and the stone was passed with the urine.

M.N. 2328—2410. Mr. Lund, Mr. Young, Dr. Cullingworth, Mr. Hare.

CALCULI. 53 : 43

M.N. 2360. Feb. 18, 1876.

VESICAL CALCULUS Composed of Uric Acid and Phosphates. 53 : 43

The concretion presents a central nucleus, an intermediate zone slightly more porous, and an outer laminated portion. All the areas consist of uric acid and earthy phosphates, the latter being present chiefly in the middle zone.

The patient was a male, aged 14 years.

M.N. 2411—2456. Mr. Turner and others.

CALCULI from Various Sources. 53 : 43

M.N. 2419. Feb. 8, 1873. Mr. Turner.

VESICAL CALCULUS Composed of Urates and Phosphates. 53 : 43

The concretion shows very distinct lamination. A dense central portion is surrounded by a somewhat porous zone, then there is a band of uniform brown deposit, then a broad area of white chalky material, a further lamina of brown-coloured salts, and finally a thin coating of the white substance. The brown-coloured material consists of urates with a slight admixture of earthy phosphates. The white substance is composed of earthy phosphates only. A quite insignificant quantity of calcium oxalate is present. The proteid framework is small in amount.

The patient was a male, aged 14 years.

M.N. 2420. Mr. Turner.

VESICAL CALCULUS Composed of Uric Acid, Urates, Earthy Phosphates. 53 : 43

The concretion consists of a small, oval, dense, laminated, fawn-coloured portion, and a large, porous, white part, which contains a few laminæ of fawn or light-brown substance. The dense nucleus is composed of almost pure uric acid. The outer part consists of earthy phosphates, with a slight admixture of urates. The organic proteid framework is excessive in amount.

M.N. 2421. Mr. Turner.

VESICAL CALCULUS Composed of Uric Acid Nucleus, Calcium Oxalate and Phosphates. 53 : 43

The concretion shows three distinct zones of formation. The centre is brown in colour, loose in structure and somewhat friable. It is composed of almost pure uric acid. The middle portion is irregular in shape, the part lying immediately around the uric acid portion being laminated, hard, and of dense structure. This is enclosed by a porous layer of more friable material. External to this is another zone of flint-like hardness, which shows numerous projections into the outer layer. This middle zone is composed of calcium oxalate with a minute trace of uric acid. The outer zone is chalky in appearance and consists of earthy phosphates.

M.N. 2467—2477.

CALCULI from Various Sources. 53 : 43

URINARY BLADDER: INFLAMMATIONS.

M.N. 110. Mr. Lund.

BLADDER: Cystitis; Hypertrophy. 53 : 52
53 : 62
53 : 43
54 : 62

The bladder is laid open by a vertical incision on its anterior surface. The walls are greatly thickened, and the mucous surface appears somewhat fasciculated. The mucous membrane is thickened and swollen and in parts shows irregular granular deposits of phosphates. The epithelial layer is in parts detached. The prostate is enlarged.

The subject from whom the viscus was removed was operated on for stone. Acute cystitis supervened and he died a few days after the operation.

M.N. 111. D.B. 995. P.M.S. 1887, No. 168. Jan. 13, 1890.

BLADDER: Fibrinous Cystitis. 53 : 54 · 2

The specimen shows the bladder in a state of membranous cystitis. It is not dilated, but its walls are very thin and the inner surface is covered by a ragged layer of pseudo-membrane, which here and there is becoming detached in fragments. There is no deposit of phosphates. The cystitis was consecutive to stricture of the urethra. The prostate was normal, but the pelves of the kidneys showed pyelo-nephrosis. In the left kidney there were also purulent areas, due to suppurative nephritis.

The patient, a male, aged 50, died from uræmia, and there was found commencing caseous tuberculosis of both lungs.

M.N. 113. D.B. 1649.

BLADDER: Chronic Cystitis. 53 : 52 · 2

The bladder has been turned inside out to show the inflamed mucous membrane. The inflammation has caused a very marked roughening of the surface from swelling, and deposition on the lining membrane of an irregular layer of inflammatory exudate. The history of this case has been lost.

M.N. 114. D.B. 564. P.M.S. 1881. No. 260. Nov. 4, 1887. Mr. Hardie.

BLADDER: Membranous Cystitis. Dilatation. 53 : 52 · 1
53 : 46
53 : 43
53 : 27 · 2

The viscus, opened on its anterior aspect, is dilated and was adherent to the bowel and omentum. The mucous surface is covered by a thick, friable false membrane, on which there is an irregular deposit of phosphates. This forms a cast of the inner surface. The urine in the bladder was very turbid. The ureters were slightly dilated. The peritoneal surface of the bladder was inflamed, but there was no general peritonitis.

The patient, a male, aged 28, suffered from dislocation of the spine between the 7th cervical and the 1st dorsal, and there was softening of the cord and acute nephritis.

M.N. 130. D.B. 1640.

BLADDER: Nodular Formation due to Bilharzia Hæmatobium. 53 : 55 · 1 (71 · 3)

The specimen is a vertical section of the bladder and rectum, showing a tumour-like mass in the bladder, formed by the chronic inflammatory thickening due to the presence of the ova of Bilharzia hæmatobium.

Microscopic examination shows the bladder wall to be the seat of extensive fibrosis, the new tissue of which has undergone marked hyaline change. Here and there are found embedded in the fibrous tissue small groups of the Bilharzia ova.

URINARY BLADDER: SPECIFIC INFLAMMATIONS.

M.N. 124. Mr. Southam.

BLADDER and VESICULÆ SEMINALES: Tuberculosis. 53 : 56 · 1
55 : 56 · 1

The bladder is not dilated nor hypertrophied. The inner wall shows the rough granular aspect due to tuberculous infiltration over its whole surface. There is no healthy mucous membrane. The vesiculæ seminales show tubules dilated by an accumulation of inflammatory exudate, which has become caseous; in some instances the necrosed mass has begun to break down.

Microscopic examination confirms this.

M.N. 127. D.B. 1603. P.M.M. 1886, No. 56. June, 1887. Dr. Dreschfeld.

BLADDER: Tuberculous Cystitis. 53 : 56 · 1
KIDNEYS: Tuberculosis. 51 : 56 · 1

The wall of the bladder is covered with tuberculous nodules which give it a very rough granular appearance. It is generally thinned. The tuberculous deposit was especially plentiful about the mouths of the ureters. Both ureters are dilated, and the lining membrane shows well-marked tuberculous deposits. Both kidneys are markedly enlarged, and are the site of extensive tuberculous inflammation. The right has undergone the more marked change and has become hollowed out into a series of large cavities. The testicles were normal. Two ulcers were found in the small intestine.

The patient was a boy, aged 10. There were old tuberculous cicatrices in the lungs and round them recent miliary tubercles had formed.

M.N. 3368. D.B. 4270. P.M.M. 666. Dec. 16, 1904. Dr. Harris.

BLADDER: Tuberculous Cystitis. 53 : 56 · 1
KIDNEYS: Pyonephrosis. 53 : 55 · 4
CÆCUM: Tuberculous Ulceration. 51 : 56 · 2
51 · 1 : 67 · 1
35 · 3 : 56 · 1
35 · 3 : 55 · 3

The bladder has thickened walls and its cavity contained foul thin pus. There was a very extensive granular, dirty yellow incrustation on the mucous membrane, which is irregular and necrotic (tuberculous granulation tissue). The right kidney is slightly enlarged and of normal shape and consistence (weight, 5 ozs.). The capsule stripped off easily, leaving a pale brick-red, perfectly smooth surface. On section the cortex is pale and slightly thickened, and in two places near the capsule are found minute yellow tubercles. The left kidney is moderately enlarged. It has a pale yellow, lobulated surface, and the whole organ had a cystic feeling. On section, very little kidney tissue remains, only a thin strip of cortex $\frac{1}{8}$ to $\frac{1}{4}$ inch in depth. The pelvis and calyces are much dilated, leading to the formation of a multilocular cavity with greyish-yellow, slightly roughened walls, and filled with thin yellow pus of foul odour. The cæcum is the seat of two rounded ulcers of unequal size, situated near the opening of the appendix. They are fairly deep and their edges are slightly thickened. There were no other signs of tuberculous affection of the bowel. (See lung, M.N. 3369—25 : 56·1.)

URINARY BLADDER: BENIGN TUMOURS.

M.N. 131. D.B. 1499. Mr. Harris.

BLADDER: Papilloma. 53:64·6

On the floor of the bladder, and to the left of the middle line, there is a considerable mass of papillomatous growth with a broad base, divided into three nodules and presenting a roughened warty surface. The bladder wall is slightly hypertrophied, but there is no sign of cystitis.

M.N. 132. Dr. Roberts.

BLADDER: Papilloma. 53:64·6

Projecting into the cavity of the bladder is a cauliflower-like tumour arising from the wall of the viscus on the outer side of the right ureteric orifice. In this region there is a localised dilatation of the bladder forming a kind of sac in which the bulk of the tumour is contained. The prostate is somewhat enlarged.

Microscopically, the tumour shows somewhat delicate processes of connective tissue covered by cells in a single layer, but much more rounded than those usually seen in this type of tumour.

M.N. 139. D.B. 1574.

BLADDER: Papilloma. 53:64·6

The bladder has been opened from behind, and a glass rod placed in the urethra. The growth is seen as an irregular papillomatous mass spreading over the greater part of the bladder wall. The two ureters remain, and are seen to be dilated. To the left the kidney is attached, and shows a condition of moderately advanced hydronephrosis.

M.N. 143. Mr. Southam.

BLADDER: Papilloma. 53:64·6

The specimen shows three villous growths removed by operation from the wall of the bladder.

M.N. 144. Mr. Southam.

BLADDER: Villous Tumour. 53 : 64 · 6

The specimen shows the bladder, from the base of which a villous tumour springs. In the recent state it was of a pale reddish-grey colour, and very soft in consistency, but did not involve the wall deeper than the submucous coat. The muscular coat of the bladder is hypertrophied. Both kidneys were hydronephrotic, the mouths of the ureters being obstructed by the tumour growth.

Microscopically the tumour had the structure of a papilloma vesici, but the stroma was of a sarcomatous appearance in places, and a secondary growth of sarcomatous structure consisting of small round cells had formed in the sacrum.

M.N. 146. Mr. Southam.

BLADDER; Papilloma. 53 : 64 · 6

The specimen shows a papillomatous growth removed from the wall of the bladder by suprapubic cystotomy.

M.N. 147. Mr. Southam.

BLADDER: Papilloma. 53 : 64 · 6

The bladder is that of a patient from whom a papilloma had been removed ten days before death. The point of attachment of the pedicle of the tumour is marked by a thickening and irregularity in the mucous membrane above, and to the left of the vesical orifice of the left ureter, in which a blue rod is placed. The wall of the bladder shows a series of raised patches, which in the recent state had a greyish colour, and were of soft consistency. The kidneys and ureters were normal.

M.N. 148. Mr. Southam.

BLADDER; Papilloma. 53 : 64 · 6

The bladder is opened anteriorly and on the right wall, about the middle of the viscus, there is a roughened patch from which a papilloma was removed by operation. Death was due to acute peritonitis.

Microscopic examination shows that the tumour is a simple papilloma.

M.N. 149. Mr. Southam.

BLADDER: Papilloma. 53 : 64 · 6

The specimen shows five portions of a large mass of papillomatous tumour which almost filled the bladder in a patient aged 62. The growth sprang from the posterior and left lateral wall of the bladder. The minute structure was that of a papilloma with a cellular matrix.

M.N. 150. Mr. Southam.

BLADDER: Villous Papilloma. 53 : 64 · 6
53 : 27 · 1
53 : 27 · 2

The bladder is dilated and at one part shows the presence of a large diverticulum, the opening of which was extremely wide. On the posterior wall a rough felted surface is seen, at the site from which a tumour had been removed the day before the patient died. The growth was a papilloma, and was confined to the mucous membrane of the bladder.

M.N. 158. Mr. Southam.

BLADDER: Papilloma. 53 : 64 · 6

The bladder is slightly dilated, and springing from the base are a number of sessile growths with villous surfaces. These, though distinct from one another, were clustered together as one large mass which projected into the interior of the bladder. In the midst of the growth there is a small aperture which communicated with the cavity of the abscess situated between the bladder and the rectum. (A glass rod is placed in this opening.) The abscess cavity communicated with the abdominal cavity, and there was recent peritonitis.

M.N. 3078. Mr. Collier.

BLADDER: Villous Papilloma. 53 : 64 · 6

The specimen is an irregular papillomatous growth. The tumour was attached to the wall of the bladder by a small pedicle.

The patient was a male, aged 20 years, who had suffered from intermittent attacks of hæmaturia.

M.N. 3140. Mr. Thorburn.

BLADDER: Villous Papilloma. 53:64·6

The growths are made up of masses of delicate branched processes. One or two of them show discoloration from hæmorrhages.

The patient was a man, aged 53 years, who had suffered from painless intermittent hæmaturia for twenty years. The amount of blood lost was never great. He was anæmic, but not wasted. The mucous membrane of the bladder was found, on suprapubic cystotomy, to be extensively covered at the base with villous growths which were partly removed with the fingers and forceps, but were too diffuse to admit of entire removal.

Microscopic examination showed them to be simple papillomata with no evidence of malignancy.

URINARY BLADDER: MALIGNANT TUMOURS.

M.N. 134. D.B. 884. P.M.S. 1887, No. 133. Sept. 12, 1889.
Mr. F. A. Southam.

BLADDER: Vesical Tumour. 53 : 65 · 1
KIDNEY, URETER: Hydronephrosis and Atrophy of Kidney. 51 · 1 : 67 · 1
51 : 41

The bladder contains a few masses of fibrinous coagulum which are attached to the surface of a new growth. The kidney is diminished in size, and lobulated; the calyces, pelvis and ureter are dilated. In the bladder, which is dilated, there is a fungating mass of new growth projecting from the wall in the vicinity of the right ureteric orifice. This evidently has been the cause of the obstruction to the outflow of urine from the right ureter, and of the dilatation of the excretory passages on that side. About 2 in. in front of the main mass of new growth there is a small one of the same structure (papillary).

Microscopic section shows that the tumour tissue is a sarcoma.

The patient, a male, aged 63, died from uræmia.

M.N. 141. D.B. 1645.

BLADDER: Carcinoma. 53 : 66 · 3

The specimen consists in a bladder showing very marked thickening of the walls from carcinomatous infiltration. The growth is chiefly confined to the mucous membrane, the surface of which is irregular, but not markedly destroyed. On the cut surface the cancer displays a pale yellow opaque tissue of fine uniform texture. In the substance of the growth at its thickest part two narrow cavities are seen where the tissue has apparently softened.

Microscopic examination shows the muscular wall infiltrated with epithelial cells of a glandular type, and surrounded by a large amount of matrix.

M.N. 152. Mr. Southam.

BLADDER: Carcinoma. 53 : 66 · 3

The bladder wall is much thickened, hard and white. The mucous membrane over the harder area is tough and ragged and presented a dark sloughing appearance. The base is the part chiefly involved. The kidneys were granular and contracted, but there was no hydronephrosis.

On microscopic examination the structure is seen to be that of a medullary carcinoma. The cells show no alveolar arangement, but are irregularly grouped in the meshes of a loose connective tissue matrix. They are very large in size, and have prominent nuclei. In some areas necrosis has taken place extensively.

The patient was a female, aged 64, who died from septic peritonitis.

M.N. 154. Mr. Southam.

BLADDER: Carcinoma. 53 : 66 · 3

The specimen consists of portions of an encephaloid cancer of the bladder, passed per urethram during life.

M.N. 155. Mr. Southam.

BLADDER: Epithelioma. 53 : 66 · 1

The specimen shows the bladder with an epithelioma springing from the base, the posterior, and the lateral walls. A perforation had formed in the wall and led to an opening into the rectum about 6 inches above the anus. The tumour almost completely fills the cavity of the bladder. A calculus had been removed fifteen years previous to the patient's death from cancer, and shortly after the removal the fistula had formed.

Microscopically the tumour is an epithelioma.

M.N. 160. Mr. Southam.

BLADDER, PROSTATE: Sarcoma. 53:65·3
54:65·3

The bladder is dilated, and its walls somewhat thinned. A circular sessile growth projects ½ to 1 inch from the surface of the trigone. Its surface is shreddy. Its base is firm, and it has infiltrated the muscular coat, but has not extended beyond the wall of the bladder. At the autopsy the bladder was filled with blood clot, and there had been an extravasion of blood and urine through the anterior wall into the perivesical cellular tissues.

Microscopic examination of the growth showed it to be a mixed (round and spindle) celled sarcoma. It is probable that the growth commenced in the prostate.

The patient was a male, aged 40. (See specimen, M.N. 161—53:33.)

M.N. 163. Mr. Southam.

BLADDER: Sarcoma. 53:65·3

The bladder is small, and springing from its floor is a large sessile growth with irregular surface projecting outwards for more than an inch and infiltrating the bladder-wall but not extending beyond it. Behind the large growth there was a distinct smaller one. There was a secondary growth in the cortex of the left kidney. The vesical growth is a mixed-celled sarcoma, and the secondary growth in the kidney was a small round-celled sarcoma.

The patient was a male, aged 60.

M.N. 164. Mr. Southam.

BLADDER: Round-Celled Sarcoma. 53:65·1

This specimen consists in the broken-up tissue from a tumour which was removed from the bladder by suprapubic cystotomy. The growth was very diffuse and involved the base, posterior, and lateral walls; but did not extend deeper than the submucous coat.

The tumour was, microscopically, a round-celled sarcoma, and in some places had the characteristics of a lympho-sarcoma.

The patient was a male, aged 46.

M.N. 165. Mr. Southam.

BLADDER: Sarcomatous Polypus. 53·65·1

The specimen shows a small polypus from the anterior wall of the bladder, which had the structure of a small round-celled sarcoma.

The patient was a male, aged 47.

M.N. 180. D.B. 1044. Apr. 2, 1890.

BLADDER: Vesical Carcinoma. 53:66·3

The viscus is enlarged, and in its lower half the walls are very much increased in thickness, the inner aspect forming irregular nodular projections occupying the cavity of the organ. Where the walls are cut in section it is seen that they are infiltrated with new-formed tissue throughout their entire thickness, except over the superior half. The tumour apparently grew originally in the wall of the bladder.

Microscopic section shows the structure to be that of a glandular carcinoma. There is a small amount of fibrous matrix, and the cuboidal cancer cells are arranged in somewhat small alveolar groups. (See kidney, M.N. 181—51·1:67·1.)

M.N. 2592. D.B. 2940. Dec. 15, 1894. Dr. Wilkinson.

BLADDER: Carcinoma. 53:66·3

The bladder is much enlarged and weighed $1\frac{1}{2}$ lbs. The walls are much thickened, and the cavity dilated. Near the base the thickening is chiefly due to thickened muscle coats; but at the fundus and the upper half of the posterior wall there is a loose infiltration by a malignant growth, and this part of the wall is in places $\frac{3}{4}$ inch thick. On the posterior wall there projects a sessile nodular mass $1\frac{1}{2}$ inches across, having a firm consistence. Its surface shows no ulceration.

Microscopically, the tumour consists of cuboidal cells with a moderate amount of stroma.

The patient was a male, aged 62.

PROSTATE; RETROGRESSIVE DISORDERS.

M.N. 123. D.B. 1632. Mr. Southam.

PROSTATE: Calculi. 54 : 43
BLADDER: Hypertrophy. 53 : 62

The bladder shows well-marked hypertrophy without dilatation. The right lobe of the prostate has been laid open to show the presence of a number of smooth, round, white calculi in the substance of the prostate.

PROSTATE: HYPERTROPHY INCLUDING ADENOMA.

M.N. 100. D.B. 1646.

BLADDER, PROSTATE, PORTION of the RECTUM: 54 : 62 (64 · 7)
Prostatic Hypertrophy. Dilatation of Bladder. 53 : 27
Urethro-rectal Fistula. 57 : 22
35 · 5 : 22

The bladder is dilated and the wall is thinned. The prostate is enlarged, the middle lobe being very conspicuous. From the prostatic urethra there is a fistulous passage which communicates with the rectum.

M.N. 102. D.B. 430.

BLADDER and PROSTATE: Hypertrophy of Prostate. 54 : 62
Dilatation, Hypertrophy and Sacculation of Bladder. 53 : 27 · 1
53 : 62

The specimen shows moderate hypertrophy of the prostate, with some degree of dilatation of the bladder. In the wall of the bladder are seen two round openings, about the size of a sixpence, leading into the smooth-walled cavities of small diverticula.

M.N. 115. D.B. 1647.

PROSTATE: Hypertrophy. 54 : 62
BLADDER: Cystitis. 53 : 52 · 2
53 : 43

The bladder shows a considerable amount of inflammatory thickening and infiltration. The surface of the mucous membrane has a roughened granular appearance. The lobes of the prostate are distinctly enlarged, the middle lobe forming a large prominence in the middle line. Over the convex rounded upper surface of the middle lobe a cap of phosphates has been formed. The mucous membrane beneath the cap is markedly roughened from inflammation.

M.N. 121. D.B. 1642.

BLADDER: Calculus, Hypertrophy, Sacculation. 54 : 62
PROSTATE: Hypertrophy. 53 : 43
53 : 62 · 1
53 : 27 · 1

The bladder is enlarged and its walls are thickened. Behind the trigone there is a deep sacculus containing a number of rounded calculi. The prostate is considerably hypertrophied.

M.N. 167. Mr. Bowring.

BLADDER and PROSTATE: Prostatic Enlargement, Dilatation of Bladder. 54 : 62
53 : 27

The bladder is dilated and thinned. The prostate is much enlarged, forming a dense rounded mass through which the prostatic urethra passes.

M.N. 169. D.B. 1637.

URETER, BLADDER, PROSTATE: Hypertrophy of the Prostate, Dilatation of Bladder and Ureters. 54 : 62
53 : 62
52 : 62

The bladder is dilated and its inner aspect has a fasciculated appearance. The ureters are also dilated and apparently thickened. The prostate is considerably enlarged, the median lobe forming a distinct, smooth, nodular projection into the cavity of the bladder.

M.N. 170.

PROSTATE: Hypertrophy. 54 : 62

The specimen consists in a portion of bladder, with the prostate gland; a blue glass rod is passed along the urethra. The prostate is enlarged, the hypertrophy affecting specially the middle lobe, which is seen projecting internally at the neck of the bladder, and forming a valvular obstruction at that point. The walls of the bladder are thickened and hypertrophied.

M.N. 174. D.B. 1643.

BLADDER, PROSTATE: Prostatic Hypertrophy. Hypertrophy of Bladder. 54 : 62 53 : 62 · 1

The bladder is slightly dilated and hypertrophied, and the median lobe of the prostate is considerably enlarged, forming a rounded nodulated mass projecting into the cavity of the bladder.

M.N. 176. D.B. 650. P.M.S. 1887, No. 21. Feb. 7, 1888. Mr. Whitehead.

BLADDER, PROSTATE: Hypertrophy of the Prostate. 54 : 62 (64 · 7) 53 : 62 · 1

The bladder is not much dilated, but its walls are thickened. The prostate is very considerably increased in size, especially its lateral lobes.

Microscopic section of the prostate shows the structure to be that of an adenoma. There is a large overgrowth of connective tissue, with areas in which glandular acini, lined by cubical epithelium, are grouped together. In some of the smaller acini the secretion is retained, and here and there a corpus amylaceum may be seen.

M.N. 177. D.B. 1644.

BLADDER: Dilatation. 54 : 62
PROSTATE: Hypertrophy. 57 : 21
URETHRA: "False Passage."

The bladder wall is thin and dilated; the median lobe of the prostate is considerably enlarged, forming a rounded projection obstructing the urethral orifice. Passing along the urethra, through the substance of the prostate, and into the bladder in the median line, immediately behind the enlarged middle lobe, there is a rough catheter made from a piece of lead pipe.

M.N. 178. D.B. 617. P.M.S. 1887, No. 12. Dec. 30, 1887. Mr. Hardie.

PROSTATE: Adenomatous Hypertrophy. 54 : 62 (64 · 7)

The bladder wall is thickened. The cavity is in great part occupied by a rounded nodular mass originating in the prostate. The lateral lobes of the prostate are normal in size. The surface of the mass was smooth except for a small area of superficial ulceration. The growth was firm, but not hard. It was pale grey in colour. The wall of the bladder is hypertrophied, but the cavity is not dilated. The mucous membrane was inflamed. There were scattered abscesses in the kidney, and the pelves and ureters were dilated.

The patient was a male, aged 69 years. Median lithotomy had been performed.

M.N. 2286. Mr. Stanmore Bishop.

PROSTATE: Adenomatous Hypertrophy. 54 : 62 (64 · 7)

This specimen shows a bladder, at the base of which a large rounded tumour has grown. The surface of the tumour presents irregular ridges and grooves, as if the tissue encapsuling the tumour had been stretched by the expanding growth. It also shows extensive pigmentation from extravasated blood. The tumour occupies a large part of the cavity of the bladder. The wall of the bladder also exhibits considerable pigmentation, and is slightly hypertrophied.

The microscopic structure of the tumour is that of a fibro-adenomatous growth. There is a large amount of cellular fibrous tissue. The matrix and the alveolar spaces are lined by low cubical epithelium in a single layer, and contain a somewhat colloid material.

M.N. 3039. Mr. Wright.

PROSTATE: Adenomatous Hypertrophy. 54 : 62 (64 · 7)

The specimen shows an enlarged prostate, removed in two portions. The upper (left lobe) is the larger of the two. The lower (right lobe) has been divided mesially, and on its cut surface it is seen to be adenomatous in structure, with a definite tendency to the development of numerous small cysts, some of which contain inspissated contents.

The patient was a man, aged 68 years, with a five years' history of enlarged prostate. There had been considerable hæmaturia and complete retention of urine for six weeks before operation. Cystitis was present. The left lobe of the prostate was specially enlarged. The prostate was enucleated with the fingers, in two masses, through a suprapubic opening in the bladder. Power of voluntary micturition was completely restored.

M.N. 3062. Mr. Thorburn.

PROSTATE: Adenomatous Hypertrophy. 54 : 62 (64 · 7)

The lateral lobes of the prostate are irregularly enlarged by adenomatous growth. The right lobe is the larger, and from it springs a sessile outgrowth. The inner adjacent surfaces of the lobes which lie close to the prostatic urethra are smooth, but the outer surfaces are shreddy in parts.

The patient was a man, aged 70 years, with the following history:—Two years' increasing frequency of micturition, two months' very painful micturition, and five weeks' complete retention of urine. The enlarged prostate was completely removed, in two pieces, through a suprapubic opening in the bladder, by enucleation with the finger. The prostatic urethra was left intact except that it was torn at the internal orifice of the urethra. Power of voluntary micturition was completely restored by the operation.

M.N. 3091. Mr. Wright.

PROSTATE: Adenomatous Hypertrophy. 54 : 62 (64 · 7)

The specimen consists of four adenomatous masses removed by enucleation from the enlarged prostate. They are irregular in shape and vary in size. The surface of the masses is much roughened. One of them has been cut into. The section shows a fibrous matrix, in the spaces of which are the multiple small cysts of adenomatous glandular tissue.

The patient was a man, aged 58 years. For four or five years he had been unable to empty his bladder completely, and for three weeks there had been complete retention of urine. Suprapubic prostatectomy was performed. The gland formed a collar-like mass around the internal orifice of the urethra and was shelled out in four pieces with the finger. Recovery was complete, voluntary micturition being restored.

M.N. 3143. Mr. Collier.

PROSTATE: Hypertrophy, Adenoma. 54 : 62 (64 · 7)

The specimen consists of an enlarged prostate suspended in an inverted position by two strands of mucous membrane adhering to it. A bougie marks the position of the urethra. The gland is uniformly enlarged and a small projecting mid-lobe can be seen. The surface is regular and is covered with fibrous bands chiefly running transversely.

The patient was a man, aged 66 years. There was a history of ten years' urinary obstruction. Six years previously there was an attack of complete retention of urine, and since then the use of the catheter was necessary. The urine was normal. The prostate was enucleated by the finger through a suprapubic opening in the bladder. Death occurred from heart failure six days after the operation.

M.N. 3152. Mr. Wright.

PROSTATE: Adenomatous Hypertrophy. 54 : 62 (64 · 7)
54 : 43

The specimen consists in eleven adenomatous masses of various shapes and sizes, with surfaces nodular and roughened by shreds of fibrous tissue. They were separately removed by enucleation with the finger, from the bladder. The specimen weighed $8\frac{1}{2}$ ozs. Seven calculi are also shown. They were removed from the bladder at the same operation.

The patient was a man, aged 72 years, who had suffered from obstruction to micturition for twenty years, and for ten years had been entirely dependent on the catheter. There had been hæmaturia on several occasions. The length of the urethra, measured by the catheter, was $12\frac{3}{4}$ in. The urine was foul, containing a large amount of pus. Suprapubic enucleation was performed March 26, 1903. Death occurred from uræmia six days later. (See prostate M.N. 3111—54 : 91.)

M.N. 3170. Mr. Collier.

PROSTATE: Hypertrophy. 54 : 62

This specimen consists in an enlarged prostatic gland. A catheter has been placed in the prostatic urethra, and it is seen that the enlargement consists of an irregular swelling of the whole gland. The capsule is of a rough fibrous character.

The patient was a man, aged 66 years, who had for ten years suffered from frequency of micturition. For the last six years there had been complete paralysis of voluntary micturition, and a catheter had been used. The prostate was enucleated with the finger through a suprapubic opening in the bladder. Recovery was uneventful.

M.N. 3371. D.B. 4316. P.M.M. 693. Feb. 8, 1905. Dr. Judson Bury.

PROSTATE: Hypertrophy of Middle Lobe of Prostate. 54 : 62
BLADDER: Hypertrophy of Bladder. 53 : 62
URETERS: Dilatation of Ureters and Pelves of Kidneys. 52 : 27
KIDNEYS: Pyelonephrosis. 51 · 1 : 67 · 1

The bladder is of normal size and shows very marked accentuation and firmness of the rugæ. There is no evidence of cystitis. The middle lobe of the prostate projects for an inch over the aperture of the urethra as a smooth, rounded, firm, polypoid mass, which was freely movable from side to side. The rest of the prostate gives evidence of enlargement. On section the middle lobe was firm and of a homogeneous white fibrous appearance. There was also a firm stricture in the membranous part of the urethra. Both ureters are much dilated, and were filled with clear fluid. Their walls are not thickened. The pelves and their calyces are also dilated, and have smooth walls. They were filled with 3 oz. of fluid which showed slight puriform streakings. No calculi were found. The kidneys weighed $5\frac{1}{2}$ oz. each. They are slightly enlarged, of normal shape, and felt flabby but not cystic. The capsule stripped off easily, and left a pale creamy-coloured surface, on which were a few small clear cysts containing puriform fluid; otherwise the surface was smooth and glistening. On section, the cortex is very pale and yellow, with faint pink streakings; the medulla has almost entirely disappeared.

The patient was a male, aged 57.

M.N. 3766. D.B. 4872. March 9, 1906. Mr. Platt.

PROSTATE: Hypertrophy. 54 : 62 (64 · 7)
BLADDER: Vesical Calculi. 53 : 43

The specimen consists of several adenomatous masses from the prostate. The masses are irregular in shape and for the most part have a shreddy surface. In the same jar can be seen one large vesical calculus and four smaller ones from the same case. The calculi are fawn-coloured, smooth, and facetted.

Microscopic examination of the prostatic tissue shows the typical adenomatous structure of prostatic hypertrophy.

The patient was a man, aged 65 years. There had been symptoms of enlarged prostate for four years with repeated attacks of complete retention of urine. The prostate was enucleated through a suprapubic opening in the bladder with the finger, and the calculi were removed at the same time. Complete power of voluntary micturition was regained.

PROSTATE: OPERATIONS.

M.N. 3111. Mr. Wright.

PROSTATE: Prostatectomy. 54:91
53:62·1

(The bladder in the specimen is inverted.) The specimen consists of a portion of a bladder which has been prepared to show its interior. Glass rods indicate the positions of the ureters and vasa deferentia. The bladder wall is hypertrophied, and its mucous membrane is thickened and thrown into folds. Just below the internal orifices of the ureters there is a large pouch the walls of which are prevented from falling together by the insertion of a glass rod. Its internal surface is rough from shreds of fibrous tissue projecting into the cavity. From this pouch the enlarged prostate was removed. (See prostate, M.N. 3152—54:62.)

VESICULÆ SEMINALES AND SPERMATIC CORD: MECHANICAL LESIONS.

M.N. 204. D.B. 749.

DISTENSION of the VESICULA SEMINALIS. 55 : 27

The specimen shows the bladder, prostate, and vesiculæ seminales. On the left side the vesicula is distended and appears as a long, tortuous, convoluted structure; its walls are apparently not thickened.

VESICULÆ SEMINALES AND SPERMATIC CORD: MALIGNANT TUMOURS.

M.N. 3241. D.B. 4399. Sept. 20, 1904. Mr. Southam.

SPERMATIC CORD: Sarcoma. 55·1:65·2

The specimen shows the testicle and cord. On the cord, immediately above the testis, there is situated an irregular rounded mass of sarcomatous growth, of a soft texture and white appearance, displaying a tendency to breaking down in the centre.

Microscopic investigation shows that the tumour is a sarcoma composed of spindle cells with a few multinuclear cells scattered amongst them.

The patient was a man, aged 23 years. Three months previously a tumour was noticed accidentally, situated on the spermatic cord above the left testicle. The growth had gradually increased in size, but had caused no symptoms. Excision was performed Sept. 20, 1904.

VESICULÆ SEMINALES AND SPERMATIC CORD: CYSTS.

M.N. 241. D.B. 1684.

SPERMATIC CORD: Encysted Hydrocele. 55·1:67·1

The specimen shows the testis, tunica vaginalis, and cord. At the upper pole of the testis is a flaccid cyst, whose base is the globus major. It has caused a conical expansion of the cord. The tunica vaginalis and testis are apparently normal.

M.N. 3248. D.B. 4391. July 23, 1904. Mr. J. W. Smith.

SPERMATIC CORD: Encysted Hydrocele. 55·1:67·1

The specimen is the sac of an encysted hydrocele which was dissected off the cord at an operation. The body of the sac forms a rounded structure, and its upward prolongation has the form of a pedicle.

The patient was a male, aged 19 years. The hydrocele had been present about three or four months. Operation was performed July 23rd, 1904.

TESTIS: CONGENITAL MALFORMATIONS.

M.N. 202. Mr. Whitehead.

UNDESCENDED TESTIS. 56 : 11

The specimen shows an elongated, flattened, distorted testicle of small size. The processus vaginalis can be seen alongside the spermatic cord as a smooth membrane.

M.N. 3016. Mr. Thorburn.

UNDESCENDED TESTIS. 56 : 11 38 : 23

The specimen consists of an undescended testis lying in a congenital hernial sac. Part of the wall of the sac has been removed to show the testis, which does not appear to be atrophied. A glass rod indicates the vas deferens.

The patient was a male, aged 20 years. There were no symptoms due to the condition until two years previous to the operation, when a hernia appeared, forming a swelling the size of an orange, always reducible. The testis was removed with the sac.

TESTIS AND TUNICA VAGINALIS: CIRCULATORY DISTURBANCES.

M.N. 3052. May, 1902. Mr. Southam.

TESTIS: Hæmatocele 56·2:33

The specimen consists of the testis, tunica vaginalis, and cord. The tunica vaginalis shows a very marked degree of fibrous thickening. Its cavity was very much dilated and the space is filled up completely by a brick-red friable blood clot. The hæmorrhage originated in a blow which the patient received seven weeks previously. Part of the blood clot has been removed to show the testis bulging on the floor of the cavity. The cord is thickened and the unaltered vas is embedded in fibrous tissue. The wall at its thickest part measures one inch, and presents a laminated structure.

The patient was a man, aged 62 years, who had had an enlargement of the testis, the size of a hen's egg, for a long time. The hæmatocele, with the atrophied testis, was removed May, 1902.

M.N. 3244. Jan. 22, 1904. Mr. Wright.

TUNICA VAGINALIS: Hæmatocele. 56·2:33
56:41

This specimen consists of a large cyst-like structure, the cavity of which is divided up into loculi communicating freely with each other. The cyst wall consists of a fibrous membrane. The inner surface is smooth and adhering to it are masses of coagulated blood. The testicle and epididymis have disappeared from atrophy.

The patient was a man, aged 41 years. The condition followed a blow on the testicle in Sept., 1903. The hæmatocele was removed Jan. 22nd, 1904. Recovery good.

TESTIS AND TUNICA VAGINALIS: INFLAMMATIONS.

M.N. 217. D.B. 1666.

TUNICA VAGINALIS: Fibrinous Inflammation. 56·2:54·2
56·2:27

The specimen shows the tunica vaginalis thickened on its inner aspect by a layer of fibrinous deposit. The part of this membrane covering the testis has been partially reflected, exposing the smooth serous surface of the tunica vaginalis. The cavity of the tunica was distended by serous exudation.

M.N. 3273. D.B. 3589. P.M.S. 1896, No. 113. Sept. 6, 1897.
Dr. Graham Steell.

TESTIS: Septic Orchitis and Epididymitis from Ulcerative Endocarditis. 56:54·5

The testis is slightly enlarged, but its contour is retained. On section there are seen to be numerous abscess cavities situated both in the body of the testis and in the epididymis. The other testis was normal.

The patient was a male, aged 56. At the autopsy were found acute fibrinous pericarditis, ulcerative endocarditis of the aortic valves, pyæmic abscess of the lungs and kidneys, empyema, suppuration of the seminal vesicle and of the vasa deferentia.

TESTIS AND TUNICA VAGINALIS: SPECIFIC INFLAMMATIONS.

M.N. 205. D.B. 1667. Mr. Southam.

TESTIS; Tuberculous Epididymitis and Orchitis. 56·1 : 56·1

The specimen shows the testicle divided by a vertical antero-posterior incision. The tissue of the testis is for the most part normal, but at its lower pole it is compressed by a tuberculous caseous mass in the epididymis. Situated at the upper pole is a very large caseous mass, which has also resulted from tuberculous infiltration of the epididymis. The testicle immediately adjacent to this mass shows an area of tuberculous infiltration. The tunica vaginalis is markedly thickened and roughened.

M.N. 206. D.B. 484. P.M.S. 1881. No. 235. March, 1887. Mr. Heath.

TESTIS: Tuberculosis. 56 : 56·1

The right testicle is about twice its natural size; the epididymis is honeycombed, the result of the softening of areas of caseous necrosis. In the substance of the testis are a number of small miliary tubercles. The vas deferens is thickened, and its lining membrane is roughened.

Post-mortem notes:—Left testis normal; prostate normal; bladder showed a number of superficial ulcers up to the size of a threepenny-bit; left kidney and ureter normal. Right kidney was studded with a large number of patches of caseation the size of a walnut. The ureter was thickened, and ulcerated in its whole extent. Miliary tubercles in both pleuræ, and throughout both lungs; no tuberculous cavities. Pericardium adherent. Peritoneum healthy. Small intestine showed a few tuberculous ulcers, and large intestine showed many. There was also a suspicion of tuberculous meningitis.

The patient was a male, aged 30. (For a description of the right kidney, see M.N. 81—51 : 56·1.)

M.N. 207. D.B. 1668.

TESTIS : Tuberculosis. 56 : 56 · 2

The specimen shows the testis laid open by a vertical antcro-posterior incision. The testis is somewhat enlarged, and is studded with areas of caseation, of various sizes. Some of the larger of these have softened, and the contents have been lost, leading to the formation of cavities. These areas are scattered through both the epididymis and the body of the testis.

M.N. 210. D.B. 707. July 14, 1888. Mr. Jones.

TESTIS : Gumma. 56 : 56 · 3

The specimen shows the testicle very much distorted by the presence of a dense nodular growth, which on the cut surface appears as a somewhat whitish scar tissue enclosing areas of necrosis. Very little remains of the testicular tissue.

Microscopic examination shows large and widespread areas of cellular infiltration in a diffuse form throughout the tissue, and as foci. There are also areas of necrosis, and at other points a large overgrowth of fibrous connective tissue. Very little remains of the tubular structure of the organ.

M.N. 215. D.B. 1659.

TESTIS : Syphilis. 56 : 56 · 3

The testis has been enlarged, and the whole texture of the gland has a very fibrous appearance. In the lower half of the specimen a large caseous gumma may be seen, surrounded by a well-defined ring of white fibrous tissue.

M.N. 222.

TESTIS: Tuberculosis. 56 : 56 · 1

The specimen shows the testicle very much enlarged from a diffused process of tuberculous infiltration. The epididymis also is enlarged, and the cavity of the tunica vaginalis is obliterated by adhesions. On the cut surface the tissue is seen studded with irregular caseous areas; but there is no excavation. The caseous areas of the epididymis have to a certain extent become broken down.

Microscopic section shows that the tissue is tuberculous in structure, with numerous giant cells, accumulations of round cells, and a large number of cascous foci.

M.N. 2271. D.B. 4609. Mr. Stanmore Bishop.

TESTICLE: Tuberculous Epididymitis. 56 · 1 : 56 · 1

The testicle has been laid open by a mesial incision. It is swollen and the epididymis is the seat of an irregular abscess cavity with smooth but irregular walls. The enlargement began as a soft mass, gradually becoming harder, and this had continued for six months, when the operation was performed. There was no history of tuberculosis or injury. There was a history of a severe attack of muscular rheumatism two years previously.

Microscopic examination shows the typical structure of tuberculous inflammation.

M.N. 2905. D.B. 3675. March 29, 1898. Mr. Jones.

TESTIS: Tuberculosis. 56 : 56 · 1

This specimen shows one-half of the testis and epididymis. Both structures are much enlarged by tuberculous inflammation. The overgrown tissue shows throughout scattered patches of caseation. The smooth serous surface of the tunica vaginalis is still intact.

M.N. 2986. Mr. Wright.

TESTIS: Tuberculosis 56 : 56 · 1
56 : 54 · 5

The specimen was removed by operation. There is a nodular swelling of the epididymis and the body of the testis is also enlarged and the cord is thickened. A small portion of the skin is adherent to the testis at one point where a discharging sinus (indicated by a glass rod) was present.

The patient was aged 36 years, and gave a history of three months' slight pain and swelling of the testis. An abscess formed and burst a month before operation. The vesiculæ seminales were not affected.

M.N. 2993. Jan. 1905. Mr. Collier.

TESTIS: Tuberculosis. 56 : 56 · 1
56 : 44 · 2
59 : 55 · 3

The specimen shows the testis and cord. An incision has been made to show the tuberculous inflammation of the testis and epididymis. In the testis extensive caseous necrosis has taken place with moderate enlargement of the organ. The epididymis is much enlarged by fibrous overgrowth, which is studded with small caseous nodules. A small piece of skin attached displays the opening of a sinus leading down to a necrotic area in the epididymis. The cord is somewhat thickened.

The patient was a man, aged 23 years. The testicle had slowly enlarged after an injury three months previously. The day before the operation a small abscess burst through the skin of the scrotum. Excision was performed Jan. 7, 1905. Recovery was uneventful.

M.N. 3001. Dec. 23, 1903. Mr. Wright.

TESTIS: Tuberculosis. 56 : 56 · 1

The testicle is very much enlarged from tuberculous infiltration. In the centre there is a mass (the original testis) which is studded with miliary nodules, and around this there is a layer of caseating tuberculous granulation tissue. The skin over the greater part of the enlarged testis has been destroyed

by ulceration, and the floor of the ulcer is formed by the outer surface of the layer of caseating tissue, which forms a large *fungus testis*. The epididymis and the cord are much thickened by the tuberculous inflammation.

The patient was a man, aged 54 years. There was a history of twelve months' enlargement of the testicle with slight aching pain. An abscess had formed and was opened five months previously. Excision was performed Dec. 23, 1903.

M.N. 3037. Jan. 25, 1902. Mr. Thorburn.

TESTIS: Tuberculosis. 56·1 : 56·1
55·1 : 56·1

The specimen shows a section through the body of the testis and epididymis. The epididymis is infiltrated with tuberculous deposit. The sac is thickened, and just above the testis a section has been made into a tuberculous nodule. There is another nodule higher up. Some pigmentation from old hæmorrhage can be seen.

The patient was a man, aged 39 years. The operation was performed Jan. 25, 1902.

M.N. 3048. Dec. 26, 1903. Mr. Southam.

TESTIS: Syphilis. 56 : 56·3
59 : 55·3
56 : 44·3

The body of the testicle is enlarged generally and is very fibrous and congested in appearance. It is surrounded by a capsule of pigmented fibrous tissue. At the lower part of the body of the testicle can be seen a gumma, which is softening in the centre and which communicates by a sinus with an opening in the skin, a small portion of which has been removed with the testis. The epididymis can be seen flattened out over the enlarged testis. The cord is not thickened.

The patient was aged 32 years. He had acquired syphilis twelve years previously. The left testicle has been slowly enlarging for two years. An abscess formed and burst through the scrotal skin four weeks prior to operation, which was performed on Dec. 26, 1903.

M.N. 3112. Jan. 16, 1904. Mr. Southam.

TESTIS: Tuberculosis. 56·1 : 56·1 (54·5)

The specimen shows the testis, epididymis and part of the cord. The epididymis is very much thickened, and has compressed the testicle, especially at the lower part. The cut surface displays a number of caseous nodules in the thickened tissue, the largest of which has been the seat of a hæmorrhage. At the back of the specimen there is a small portion of adherent skin which surrounds the mouth of a sinus leading down to the largest area of necrosis described above. In the connective tissue surrounding the globus major two or three caseous nodules can be seen at the back of the specimen. The vas deferens is thickened.

The patient was a man, aged 46 years. The testicle had been enlarging for four months, and a sinus had formed in the scrotum. There was some aching pain. Castration was performed Jan. 16, 1904.

M.N. 3147.

TESTIS: Tuberculosis. 56 : 56·1

The testicle has been laid open, and shows advanced disease of the epididymis. Pale caseous foci can be seen, and cavities containing broken-down caseous material discoloured by hæmorrhages. At the lower part the skin is involved. The body of the testicle is somewhat flattened, but is not involved in the disease. The vas deferens is not thickened.

M.N. 3157. Aug. 22, 1904. Mr. J. W. Smith.

TESTIS: Tuberculosis. 56 : 56·1

The specimen consists of the testis and cord, with part of the skin of the scrotum. The testis is very much enlarged, and the skin over the surface shows an ulcer with undermined edges, and a base dotted over with tuberculous foci. The enlargement is due to tuberculous infiltration of the testis itself, in the form of a yellow fibrous tissue with here and there areas of caseous necrosis, and to a swelling of the epididymis, which extends along the cord.

The patient was a man, aged 28 years, who had suffered from an enlargement of the testicle for one month. Excision was performed Aug. 22, 1904.

M.N. 3174. D.B. 4400. Mr. Southam.

TESTICLE: Gumma. 56 : 56 · 3
56 : 44 · 2
58 · 2 : 53
56 · 2 : 27

A section of the testicle has been made to show the structural changes. The testicle is replaced by a gummatous mass, the centre of which is in a condition of caseous necrosis, and the circumference is composed of slightly pigmented fibrous tissue and testicular remains. The tunica vaginalis has been very much thickened and the cavity has been partly obliterated and partly enlarged.

The patient was a man, aged 39 years, who had suffered from an enlargement of the right testicle for six months. The swelling burst, and a sinus formed a few weeks before operation. There was a definite history of syphilis.

M.N. 3242.

TESTIS: Tuberculosis. 56 · 1 : 56 · 1

The specimen consists of a tuberculous testicle which has been laid open, and to it is attached a portion of skin in which is a sinus leading down to the tuberculous focus. There is a marked overgrowth of tuberculous granulation tissue causing obliteration of the cavity of the tunica vaginalis, and a few yellow foci of caseation can be seen in the epididymis.

M.N. 3251. D.B. 3673. Mr. Thorburn.

TESTIS: Tuberculosis. 56 · 1 : 56 · 1
56 · 2 : 55 · 7

This specimen shows a section of the testis and epididymis from a case of tuberculosis. The tuberculous inflammation has attacked the epididymis and caused in it the formation of a large rounded caseating mass. The testis itself presents very slight signs of invasion; but adhesive inflammation has obliterated the cavity of the tunica vaginalis.

From a male aged 54.

M.N. 3504. D.B. 4661. Mr. Southam.

TESTIS: Tuberculosis. 56·1 : 56·1

The testis is adherent to the tunica vaginalis, and has become distorted by tuberculosis affecting chiefly the epididymis, in the area of which are seen rounded masses with caseous centres.

Microscopically the section shows the tissue of the testis becoming invaded by tubercles.

M.N. 3541. D.B. 4669. July 31, 1905. Mr. Montgomery.

TESTIS: Tuberculosis. 56·1 : 56·1
56·1 : 44·2
56·2 : 67·1
59 (81) : 55·3

The specimen consists of the testis, epididymis, and a portion of the skin of the scrotum. The cavity of the tunica vaginalis has been partly obliterated, and what remains has been dilated to form a hydrocele. The testis has been laid open, and shows enlargement and disorganization of the epididymis from formation of a mass of tuberculous tissue which is studded with caseous foci. The body of the testis is compressed, and has apparently not been invaded. A sinus, commencing in the tuberculous mass, opens on the skin of the scrotum, to which it is adherent.

M.N. 3617. D.B. 4771. Dec. 2, 1905. Mr. J. W. Smith.

TESTIS: Tuberculosis. 56·1 : 56·1
56·1 : 44·2

The specimen consists of the testis and spermatic cord. The surface of section shows that the body of the testis itself is somewhat large and pale, but there are no distinct areas of caseation. The body is almost completely surrounded by deposits of tuberculous inflammatory tissue. The deposits form opaque yellow easeating areas, which vary in size, the largest being in the position of the epididymis. They are distinctly marked off from each other by septa of inflammatory fibrous tissue. At the lower part of the specimen a portion of the adherent skin of the scrotum can be seen. This is the seat of a sinus leading down to the site of the tuberculous inflammation.

M.N. 3647. D.B. 4585. June 2, 1905. Mr. Wright.

TESTIS: Tuberculosis. 56 : 56 · 1

The organ is very much enlarged and has been bisected. There is a considerable amount of adhesion between the layers of the tunica vaginalis, but the cavity which remains has been dilated by a collection of fluid. The testis shows irregular nodules on the surface. It is of a pale yellow colour, with ill-defined rounded patches of caseation. There is an indefinite line of demarcation between the body of the testis and the epididymis, which is also involved in the tuberculous inflammation.

The patient was a man, aged 43 years, who had suffered from phthisis for two or three years. For six weeks there had been a swelling of the testicle. There was a definite family history of tuberculosis. The testicle was removed June 1, 1905.

M.N. 3741. D.B. 4797. Jan. 16, 1906. Mr. Southam.

TESTIS: Tuberculosis. 56 : 56 · 1 (44 · 2)

The testis is much enlarged and on the cut surface is seen caseous necrosis in the newly-formed tissue, which has replaced the epididymis. The cavity of the tunica vaginalis has been completely obliterated; but the tunica albuginea is intact. In the testicle itself several nodules of tuberculous invasion can be seen, but the disease is less advanced than in the epididymis. The spermatic cord is congested and thickened.

The patient was a man, aged 18 years. The enlargement of the epididymis had been noticed for about six weeks, but had given rise to very few symptoms. About a year previously he had suffered from tuberculous disease of the ribs. The testicle was removed Jan. 16, 1906.

TESTIS AND TUNICA VAGINALIS: BENIGN TUMOURS.

M.N. 221. D.B. 1661.

TESTIS: Chondroma. 56 : 63 · 3
56 : 42 · 6

The specimen shows a firm, irregularly-nodulated tumour apparently occupying the whole of the tissue of the testis, and completely obscuring its outline. On section an irregular cavity in the centre of the mass is seen, due to myxomatous softening. The tissue of the tumour displays small, rounded, translucent masses of cartilage embedded in a meshwork of fibrous tissue.

M.N. 224. D.B. 1670.

TESTICLE; Myxo-Fibro-Lipoma. 56 : 63 · 1 (63 · 2) (63 · 5)

The specimen consists of an oval tumour about the size of a cocoa-nut, with a definite tendency to lobulation. The cut surface shows an alternation of areas, which are chiefly fatty, with areas which are chiefly fibrous.

Microscopic section demonstrates that part of the tumour is composed of groups of fat cells, separated by strands of cellular fibrous tissue. At other parts the cellular tissue is so abundant that it separates the fat cells from each other. In other areas the fat is almost completely absent, and the fibrous tissue is becoming myxomatous in character.

M.N. 225. D.B. 1674.

TESTICLE: Myxo-Fibro-Adenoma. 56 : 64 · 7 (63 · 5) (63 · 2)

The specimen shows the testicle enlarged to about the size of a cocoa-nut by a mass of tumour. The tumour is of a rounded, somewhat kidney-shaped, form. It has the appearance of possessing a fibrous basis. Here and there clefts and spaces in the form of cysts occur.

Microscopic section shows the tissue to be largely myxomatous in character, and the clefts and spaces lined by flattened cubical epithelium.

M.N. 3611. D.B. 3473.

TESTIS: Fibro-Lipoma. 56 : 63 · 2 (63 · 1)

The specimen shows one-half of a testis with part of the tunica vaginalis. The gland tissue is replaced by a tumour, which is a very vascular fibro-lipoma.

No glandular tissue was seen on microscopic examination.

TESTIS AND TUNICA VAGINALIS: MALIGNANT TUMOURS.

M.N. 208. Mr. Lund.

TESTIS: Sarcoma. 56 : 65 · 1

The organ is much enlarged as a whole. On the cut surface it is seen that the tumour is composed of a soft cellular tissue, which in the upper part is much disintegrated.

Microscopic examination shows that it is a round-celled sarcoma.

From a male, aged 62.

M.N. 209. D.B. 1665.

TESTIS: Adeno-Carcinoma. 56 : 66 · 4

The specimen consists of a testicle considerably enlarged by tumour growth. The tissue of the tumour is soft and friable. The tunica vaginalis has become adherent.

Microscopic section shows that the tissue is an adeno-carcinoma, the alveolar spaces of which are lined by columnar epithelium.

M.N. 213. D.B. 1660. Mr. Jones.

TESTIS: Carcinoma. 56 : 66 · 3

The testis is somewhat enlarged, and on the cut surface presents a fairly dense uniform structure with here and there well-defined areas of necrosis.

The microscopic section shows the tumour to be a medullary carcinoma with groups of large epithelial cells without any special arrangement. There is also a very extensive cellular infiltration of inflammatory origin, suggestive of a prior orchitis.

M.N. 214. D.B. 1677. Jan. 12, 1888. Mr. Wright.

TESTICLE: Sarcoma. 56 : 65 · 1

The specimen presents the testicle and lower part of the cord. The testicle has been laid open by a vertical incision, and is seen to be the site of general sarcomatous infiltration. At one point there is a centre of necrosis, which is probably the result of pressure.

Microscopic section shows that the tumour is composed of round cells, which are richly supplied with chromatin substance, and mingled with the growing tissue are areas of necrosis.

M.N. 220. D.B. 1669.

TESTIS: Chondro-Sarcoma. 56 : 65 · 1 (63 · 3)

The organ is considerably enlarged and the outer surface has a very granular aspect as if due to broken-down inflammatory tissue. The cut surface has a yellowish matted appearance with small areas of hæmorrhage, and about the centre some areas of hyaline cartilaginous tissue.

Microscopic examination shows that the tissue is that of a chondro-sarcoma, alveolar in type, and displaying a large amount of hæmorrhage and necrosis of the matrix.

M.N. 223. June 14, 1884. Mr. Jones.

TESTIS: Encephaloid Cancer. 56 : 66 · 3

The specimen consists of the testicle very much enlarged from the presence of a general infiltration by a new growth. The surface of the testicle is smooth; but along the posterior line, the epididymis has been invaded, and a rough nodular surface has resulted. On section it is seen that the tissue is composed of a mass of soft, uniform, apparently cellular, material, with a few bands of stroma passing through it.

Microscopic section shows a stroma of fibrous connective tissue, the spaces of which are being filled by a tumour composed of fairly large cells. The cells are arranged in masses without any tendency to glandular formation. The tissue is that of an encephaloid carcinoma.

M.N. 228. D.B. 1150. May 1, 1887. Mr. Southam.

TESTIS: Sarcoma. 56 : 65 : 1

A large tumour replacing the entire testicle, and the tunica vaginalis is thickened and expanded by the growth. The cut surface shows uniform soft friable-looking tissue, with one or two strands of fibrous septa running through it. There is very little hæmorrhage or discoloration. There is no myxomatous softening; but the breaking down of one or two areas suggest that necrosis has commenced in the central portion.

Microscopically the tumour consists of a round-celled sarcoma.

M.N. 229. D.B. 1663.

TESTIS: Rhabdomyo-Sarcoma. 56 : 65 · 1 (64 · 1)

The specimen is a large oval tumour surrounded by the tunica vaginalis. There is a slight amount of fibrous stroma, especially in the lower part of the section. The greater portion of the tissue shows a uniform soft friable structure, and near the upper part of the section a piece of the tissue has fallen out.

Microscopically the tumour has the structure of a round-celled sarcoma with strands of striped muscle-fibres in a form characteristic of rhabdomyoma.

M.N. 231. D.B. 1673.

TESTIS: Myxo-Chondro-Sarcoma. 56 : 65 · 1 (63 · 3) (65 · 5)

The specimen is a testicle much enlarged by tumour growth, and on the cut surface it shows a heterogeneous appearance due to the mixture of cartilaginous and sarcomatous tissue, along with hæmorrhage and myxomatous softening which has led to the formation of cystic spaces.

M.N. 232. D.B. 1675. Mr. Stanmore Bishop.

TESTIS: Adeno-Sarcoma. 56 : 65 · 3 (64 · 7) (63 · 5) (63 · 2)

The testis is very much enlarged as a whole. There has been some fibrinous exudation into the tunica vaginalis, the two layers of which are thickened throughout and partially adherent. The cut surface shows that the enlargement is due to a mixed-celled sarcoma, in whose substance are seen numbers of cysts, very variable in size, some of them having inspissated contents with a cheesy appearance.

M.N. 233. D.B. 1664. Dr. Adams.

TESTIS: Chrondo-Myxo-Sarcoma. 56 : 65 · 1 (63 · 2) (63 · 5)

The testicle is much enlarged by the growth of a tumour, and the cut surface shows a very irregular structure with islands of cartilage lying in a somewhat fibrous matrix. The whole tissue is much broken-up and irregular, and displays smooth-walled cystic spaces of varying size.

Microscopic examination demonstrates the presence of hyaline cartilage, with irregular areas of myxomatous degeneration, in a matrix of fibrous tissue.

M.N. 234. D.B. 862. April, 1888. Mr. Jones.

TESTIS: Rhabdomyo-Sarcoma. 56 : 65 · 1 (64 · 1)

The specimen consists of a testicle with its tunica vaginalis, which has been everted. A section has been made to show the internal structure of the large tumour, which has replaced the testis. On the cut surface it is seen that the tumour has an irregular structure with many spaces, some of which are cystic and contain colloid contents.

Microscopically the tissue is seen to have the structure of a rhabdomyosarcoma. Areas of round cells alternate with areas of fibrous tissue, often myxomatous in character, while here and there are clumps of embryonic striped muscle-fibres.

M.N. 235. D.B. 1671.

TESTICLE and SPERMATIC CORD: Melanotic Sarcoma. 56 : 65 · 5
55 · 1 : 65 · 5

The specimen shows about four inches of the cord with the testicle attached, and laid open by a mesial anterior incision. The tumour on the cord has also been laid open, and there is observed here and in the testicle the typical brownish-coloured tissue of a melanotic sarcoma with a somewhat lobulated structure.

M.N. 236. D.B. 1152. Oct. 15, 1890. Mr. Young.

TESTICLE: Melanotic Sarcoma. 56 : 65 · 5

The testis and epididymis are infiltrated with multiple nodules of melanotic sarcoma, and the growth has caused a great enlargement and thickening, especially of the tunica albuginea. There is a slight development of melanin generally in the tumour areas. The tumour is probably secondary, but there is no history obtainable.

Microscopically the cells are of the large round type, and they show a somewhat small development of pigment. There are large areas of hæmorrhage and necrosis, and in the growing part of the tumour there is a considerable infiltration of leucocytes.

M.N. 247. Mr. Lund.

TESTIS: Fibro-Myxo-Sarcoma. 56 : 65 · 2 (63 · 2) (63 5)

The smooth lining of the tunica vaginalis is seen at the lower part of the specimen, and the testis is replaced by a large fibrous cystic tumour.

On microscopic examination the tumour shows a few glands of the testicle lying in a spindle-celled tissue, the greater part of which is in a state of necrosis.

M.N. 249. Mr. Whitehead.

TESTIS: Carcinoma. 56 : 66 · 3

The testicle is very much enlarged by a tumour growth composed of a very vascular, soft, cellular tissue showing areas of hæmorrhage and cyst-like spaces with friable colloid contents.

On microscopic examination the tumour presents well-defined areas of carcinomatous growth; the epithelial cells are arranged in alveoli, and these are separated from each other by well-defined strands of fibrous tissue. Apart from this there is a marked overgrowth of connective tissue partly fibrous and partly cellular, showing various stages of necrosis and of hæmorrhage.

M.N. 1732.

TESTIS: Sarcoma. 56 : 65 · 1

This specimen shows a greatly enlarged testicle with its tunica vaginalis. A certain amount of adhesion has occurred between the visceral and parietal layers of the tunica. The testis is the seat of a tumour growth which has a uniform soft cellular appearance, and which, on microscopic examination, displays the presence of an infiltrating round-celled sarcoma. The central parts of the tumour have the appearance of necrosis, and there are several areas of hæmorrhage.

M.N. 2729. D.B. 3808. Dr. Blease.

TESTIS: Fibro-Myxo-Chondro-Sarcoma. 56 : 65 (63 · 3) (63 · 2) (63 · 5)

The specimen shows the tumour occupying the whole of the testicle. The tumour is cystic throughout, and the contents of some of the cysts are opaque, white and friable. Some are gelatinous in appearance; while others are blood-stained. Some of the cysts are empty. The intervening tissue has the appearance of fibro-cartilage of a soft translucent homogeneous character.

M.N. 2921. D.B. 138. Mr. Jones.

TESTIS : Carcinoma. 56 : 66 · 3

The specimen shows a testicle very much enlarged by the presence of a new growth.

On microscopic section is seen a glandular cancer, somewhat adenomatous in type, with two or three nodules of tissue cartilaginous in structure.

M.N. 3013. Mr. Southam.

TESTIS : Sarcoma. 56 : 65 · 1

The specimen is a large sarcoma of the testis, removed by operation. The growth has been cut into and laid open, and numerous hæmorrhages can be seen. The tumour measures $4\frac{1}{2}$ in. by 3 in. in diameter. The cord is not involved.

The patient was aged 38 years. There is ten months' history of painless enlargement of the testis.

Microscopically the tumour is a small round-celled sarcoma. There is much hæmorrhage and necrosis.

M.N. 3408. D.B. 1771. Dr. Fisher (Lytham).

TESTICLE : Sarcoma. 56 · 1 : 65 · 2

The specimen shows a small testicle attached to a large sarcomatous growth, the outer lining of which is serous membrane. The tumour has apparently commenced in the cord or epididymis close to the testicle.

Microscopic examination of the tumour shows it to be a spindle-celled sarcoma with a very definite fasciculated arrangement.

From a male, aged 25.

M.N. 3441.

TESTICLE : Round-celled Sarcoma. 56 : 65 · 1

The tissue is that of a small round-celled sarcoma, moderately vascular, and showing round the imperfectly-formed blood-vessels a considerable amount of round-celled infiltration, probably lymphocytic. The organ is the testicle and still shows the smooth serous covering of the tunica vaginalis.

M.N. 3454.

TESTICLE: Chondro-Sarcoma. 56 : 65 · 3 (63 · 3)

The tunica vaginalis shows a general thickening and opacity, but there are no adhesions. The enlargement of the testicle is due to the presence of a chondro-sarcoma, and the tissue of the tumour has a soft appearance, with a few bands of fibrous tissue, and one or two islands of hyaline cartilage. The cellular tissue in certain areas exhibits softening, the result of which has been the formation of a number of small cysts. In the upper part of the tumour a large smooth-walled cystic space has formed, and from this the contents have escaped.

M.N. 3499. D.B. 4592. June 9, 1905. Mr. Southam.

TESTICLE: Sarcoma. 56 : 65 · 1

The enormously enlarged testicle has been cut open. The tunica vaginalis is roughened and shows large dilated veins. The surface of section shows two distinct areas. A central area, which is yellow and necrotic in appearance, the necrotic tissue being at some points contained in a hyaline matrix, but otherwise forming a continuous mass. Sharply distinguished from this area is an outer zone of tissue very vascular and free from necrosis, constituting the growing part of the tumour. Small hæmorrhages occur in this zone and there is some cystic softening here and there. The tumour has begun to spread along the cord.

Microscopically the tumour consists of a close aggregation of actively-growing cells predominantly of the round-celled form. In certain areas there is great dilatation of the lymphatic spaces leading to the compression of the tumour cells.

The patient, a man aged 25 years, gave a history of about $3\frac{1}{2}$ years' growth of the testis, and there had been considerable aching pain at times. The lumber and iliac glands were enlarged by secondary growth. He had lost about 21 lbs. in weight during the previous six months. The tumour was removed May 25, 1905.

M.N. 3501. D.B. 4591. June 9, 1905. Mr. Southam.

TESTICLE: Sarcoma. 56 : 65 · 1 (44)

The testicle is very much enlarged, and has a comparatively smooth surface, with a large number of dilated veins. A soft tumour occupies completely the cavity of the tunica vaginalis, and the mass of the tumour shows on the cut surface one or two septa dividing it roughly into three portions. One portion, at the upper pole, white, cellular, and free from hæmorrhage; a middle part, irregular in shape, exhibiting softening, necrosis, and hæmorrhage, with some areas of growing cellular tissue on its outer margin; a lower part displaying an extensive area of hæmorrhage and marked vascularity.

Microscopical examination shows irregular areas of densely packed round-cells, with a very vascular, and at some points myxomatous connective tissue matrix. There is also extensive necrosis.

The patient was a man aged 33 years. He had noticed a painless enlargement of the left testicle, which had been increasing in size for 2 years. The lumbar and iliac glands on that side could be felt to be enlarged. The tumour was removed June 1st, 1905.

M.N. 3513. D.B. 4662. Mr. Southam.

TESTICLE: Sarcoma. 56 : 65 · 3

The tunica vaginalis is partially adherent, and the testis has been enlarged by a tumour of sarcomatous appearance, but showing a good deal of fibrous matrix in certain areas.

Microscopical examination shows that the tumour is essentially composed of spindle cells arranged in fasciculi; but there is a considerable proportion of irregular cells which have no special arrangement, and there are large bands of fibrous stroma.

TESTIS AND TUNICA VAGINALIS: CYSTS, INCLUDING HYDROCELE.

M.N. 237. Mr. Young.

HYDROCELE OF TUNICA VAGINALIS. 56·2:67·1

The preparation shows a large cyst, suspended by the spermatic cord, which runs along its posterior aspect. Fibres of the cremaster muscles are seen spreading out on the cyst, likewise a large vein.

M.N. 239. D.B. 1682.

HYDROCELE OF TUNICA VAGINALIS. 56·2:67·1

The specimen shows a moderately distended tunica vaginalis with walls slightly thickened and opaque. The testicle is seen as a smooth, rounded protrusion into the interior of the sac.

M.N. 240. Mr. Turner.

HYDROCELE OF TUNICA VAGINALIS. 56·2:67·1

The specimen shows a moderately large distension of the cavity of the tunica vaginalis. The walls of the sac are thickened and fibrous. The testicle is seen at one side as a smooth oval mass.

M.N. 242. Mr. Jones.

TESTIS: ENCYSTED HYDROCELE of the EPIDIDYMIS. 56·2:67·1

The specimen shows the testicle surmounted by a large cyst constituting hydrocele of the epididymis. The cyst has a somewhat pyriform shape, with its long axis along the spermatic cord. Its walls are thin, and the contents are clear.

M.N. 243. D.B. 407. Nov. 17, 1886. Dr. Dreschfeld.

ENCYSTED HYDROCELES (Bilateral). 56 · 2 : 67 · 1

Situated at the upper part of the testis is a large thin-walled unilocular cyst with clear contents.

M.N. 244. D.B. 390. Oct. 22, 1886. Mr. Heath.

HYDROCELE OF TUNICA VAGINALIS. 56 · 2 : 67 · 1
56 · 2 : 55 : 1

The specimen shows the tunica vaginalis much dilated and with thickened rough discoloured walls. The testis is buried out of sight.

M.N. 245. D.B. 1681.

HYDROCELE OF TUNICA VAGINALIS. 56 · 2 : 67 · 1

The specimen shows the thickened fibrous sac of a hydrocele. The inner wall is rough and shaggy, and the testicle has been removed.

M.N. 248. D.B. 1683.

HYDROCELE OF TUNICA VAGINALIS. 56 · 2 : 67 · 1

The specimen shows the tunica vaginalis distended by thin, clear fluid. Strands of cremaster muscle are seen spread out over the distended sac.

M.N. 2733. D.B. 2594. June, 1894.

TUNICA VAGINALIS: Hydrocele. 56 · 2 : 67 · 1

The specimen shows the tunica vaginalis in a condition of marked distension; the structure has been laid open by a vertical incision, and while the tunica is somewhat thickened the inner wall is smooth and translucent. The testicle is seen at the base posteriorly. At the apex of the cavity there is a mass of very loose, œdematous fibrous tissue, the upper part of which is darkly pigmented through old-standing hæmorrhage.

M.N. 3041. Mr. Collier.

EPIDIDYMIS: Encysted Hydroceles. 56·1:67·1

The specimen consists of two thin-walled cysts, the cavities of which have been stuffed and filled out. They were attached to the globus major on each side, and a portion of that structure is still adherent to them.

M.N. 3412. D.B. 2220.

TESTICLE: Spermatic Cyst. 56:67·1

The specimen shows two testicles, the epididymis of each being converted into a cyst. In one case the cyst is multilocular, while in the other there is apparently only one large cavity.

M.N. 3428. D.B. 2665. Sept. 17, 1894. Mr. Whitehead.

TUNICA VAGINALIS: Hæmatocele. 56·2:67·1
56·2:33

The cavity of the tunica vaginalis has been greatly enlarged, giving the whole structure a pyriform outline. The walls of the tunica vaginalis are greatly thickened, and the cavity is divided into a number of loculi more or less separated from each other. Into these cavities hæmorrhage has occurred at intervals.

URETHRA: INFLAMMATIONS.

M.N. 183. D.B. 608. P.M.S. 1887, No. 6. Dec., 1887. Mr. Jones.

URETHRA: Stricture. 57 : 55 · 5

One and a half inches in front of the orifice of the bladder, in the membranous portion of the urethra behind the stricture was an aperture which led to an external perineal wound. The stricture was so complete as practically to separate the cavernous from the prostatic portion. The stricture was very dense, and even along the cavernous part of the urethra there was evidence of chronic inflammation. The bladder is considerably hypertrophied, but not dilated. The mucous membrane showed some discoloration. The muscular bundles are seen to be very prominent on the inner surface of the bladder. The ureters were not dilated and the kidneys were normal.

The patient, a male, aged 56, died from catarrhal pneumonia a fortnight after operation.

M.N. 185. D.B. 1639.

BLADDER, PROSTATE, URETHRA: Stricture of the Urethra with Perineo-urethral Fistula. 57 : 55 · 5
57 : 22
05 · 7 : 22

The bladder is small and contracted, its walls being somewhat thickened. The prostatic urethra is dilated, and at its anterior end there is a large opening which communicates by a short channel with the exterior in the region of the perineum. The membranous portion of the urethra is slightly dilated, and at its junction with the penile portion, the lumen of the canal is diminished by a transverse fibrous band.

M.N. 186. D.B. 258. P.M.S. 1881, No. 192. March 8, 1886. Mr. Jones.

BLADDER and URETHRA: Stricture and Peri-urethral Abscess. 57 : 55 · 5
57 : 54 · 5
53 : 62

There was a stricture of the urethra at the posterior end of the spongy portion, and on each side of it there is a ragged abscess cavity. This was incised from the perineum. The bladder was hypertrophied, and there was purulent cystitis. The pelves of the kidneys and ureters were also distended with puriform fluid.

M.N. 187. Mr. Southam.

BASE OF BLADDER, PROSTATE, PENIS: Stricture of the Urethra, Urethral Fistula. Dilatation and Hypertrophy of Bladder. Dilatation of Ureters. 57 : 55 · 5
57 : 27 · 2
57 : 55 · 3

The membranous urethra is occupied and occluded by a band of cicatricial tissue. On the proximal side of this there is a small opening leading into the peri-urethral tissues. The prostatic urethra is greatly dilated, opening into a sacculus in the anterior half of the trigone. The ureters are also much dilated.

URETHRA: MALIGNANT TUMOUR.

M.N. 3723. D.B. 4780. Dec. 6, 1905. Mr. Platt.

URETHRA: Carcinoma. 57 : 66 · 1
57 : 55 · 3

The penis has been divided longitudinally, and on the cut surface may be seen a mass of tumour occupying the cavernous tissue anteriorly and extending into the glans. In the midst of the tumour mass may be seen the remains of an abscess. This had been opened in January, 1905, and since then a sinus had persisted, with a good deal of inflammation round it. In September, 1905, the case was treated for the inflammation round the sinus, but after that time the tumour grew rapidly and amputation was performed in December, 1905. The glands of the inguinal region were enlarged at the time of operation.

Microscopically the tumour is a carcinoma.

There was a history of injury to the penis when the patient was 4 years old, and for 4 years thereafter a catheter was used. Then there was an interval of 35 years, during which he was free from trouble. The patient was 50 years of age.

PENIS AND EXTERNAL GENITALS: MALFORMATION.

M.N. 201.

PENIS: Malformation. 58: 12

This specimen shows on the posterior surface what is apparently the lining of the urethral canal, extending for about half the length of the organ. Its walls are smooth and show numerous crypts. Anteriorly another portion of the urethra is seen, buried in the substance of the penis, but terminating about the point where the posterior portion ends, and there is no communication between the two. The anterior portion of the penis is covered with a smooth surface of epithelium over a considerable area, extending back beyond the part occupied by the anterior portion of the urethra. The lesion is probably congenital, but no history is obtainable.

M.N. 3626. D.B. 788. April 13, 1888. Mr. Collier.

EXTERNAL GENITALS: Malformation. 58: 12

The anus and perineum are normal. The scrotum is normal and contains both testes fully descended. There was congenital inguinal hernia on both sides. There is no trace of a penis. Inside the rectum on the anterior wall, $\frac{1}{8}$ inch above the anus, there is an aperture opening into a short canal, with a blind end probably representing the remains of the uro-genital sinus. In the mass of tissues on the pelvic aspect can be made out the rectum and an ill-defined uterus, but no ovaries.

The patient was a child which lived five weeks. (For a description of the case see *The British Medical Journal*, Feb. 23, 1889, page 409.)

PENIS: SPECIFIC INFLAMMATIONS.

M.N. 188. D.B. 1656.

PENIS: Primary Syphilis. 58 : 56 · 3

The specimen consists of the anterior portion of the penis. A deep excavating ulcer is seen on the glans; its edges are not markedly thickened, and the floor shows one area covered by uneven epithelial processes, and at another area where the ulcer is deeper the floor is composed of fibrous tissue.

Microscopic examination of the ulcer shows that in the tissue forming the floor there is a very marked round-celled infiltration, the round cells being very widely diffused with here and there a tendency to arrange themselves in foci. The blood-vessels are not markedly inflamed. The whole has a necrotic appearance, but the necrosis has not a focal distribution. Covering this tissue is an irregular layer of epithelium, the cells of which have assumed a long spindle-shaped form.

PENIS: MALIGNANT TUMOURS.

M.N. 189. D.B. 1654. Mr. Jones.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows the anterior portion of the penis. The glans and prepuce have been replaced by a flat, round, rosette-shaped disc of tumour growth having a papillomatous appearance on the surface.

M.N. 190. D.B. 1651.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows the anterior extremity of the penis. The glans is the seat of a slightly lobulated granular tumour, which has covered the whole surface. The growth is composed of a mass of small papillæ, and the superficial layers of these papillæ are being thrown off giving an appearance of ulceration.

M.N. 191. Mr. G. A. Southam.

PENIS: Epithelioma. 58 : 66 · 1

This specimen consists of the distal half of the penis, which is the site of a large fungating mass of squamous epithelioma. The tumour has burst through the skin at various points and the surface of the processes has a cauliflower-like appearance.

M.N. 192. D.B. 1657. Mr. Lund.

PENIS: Epithelioma. 58 : 66 · 1
58 : 45 · 2

The specimen shows the anterior extremity of the penis, which is the seat of an enormous epitheliomatous tumour. The tumour has grown in several large masses, the substance of which is minutely divided up into small processes; the massing together of them gives the surface a roughened warty appearance.

M.N. 193. Mr. Turner.

PENIS: Epithelioma. 58:66·1
58:45·2

The specimen shows the anterior portion of the penis. The glans penis is the seat of a massive ulcerated epithelial growth, and the body of the penis is markedly thickened. The base of the ulcer is very rough, and excavated, and the edges are everted and thickened. The skin is very much discoloured.

M.N. 194.

PENIS: Epithelioma. 58:66·1
58:45·2

The specimen shows a large epitheliomatous ulcer affecting the whole of the mucous surface of the prepuce and at one point extending into the substance of the glans. The skin of the penis is infiltrated for some distance, and exhibits a distinct swelling. The ulcerated surface is much discoloured by extravasation of blood.

M.N. 195. Mr. Jones.

PENIS: Epithelioma. 58:66·1

The specimen shows the anterior extremity of the penis. Springing from the corona, and especially at one side, is a flat, fungating mass, of epithelial growth. The body of the penis is not affected; but the skin of the glans presents a hard, scaly appearance. The growth was not ulcerated.

M.N. 196. D.B. 1652.

PENIS: Epithelioma. 58:66·1

The specimen shows the anterior extremity of the penis. The prepuce and its frenum are the seat of a very large nodular tumour, which surrounds the corona of the glans as a massive ring of tissue. The meatus is free. The surface of the tumour has the appearance of ulceration due to denudation of the superficial layers of epithelium.

M.N. 197. D.B. 1653. Mr. Jones.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows one-half of the anterior extremity of the penis. The glans and prepuce are the site of a tumour growth, which presents an irregular ulcerated surface. The prepuce has been thickened and everted; the cut surface shows the infiltration of the subcutaneous tissue with nodules of tumour growth.

M.N. 198. D.B. 1655.

PENIS: Epithelioma. 58 : 66 · 1
58 : 45 · 2

The specimen shows the anterior portion of the penis. On the side of the glans penis a massive tumour growth has formed and has deeply ulcerated. The edge of the ulcer is rounded and thickened, and presents a sinuous outline. The body of the penis is enormously thickened, and the cross section shows that it is infiltrated with the tumour growth. The skin surface is studded with round fungating masses of outgrowing tumour, most of which have ulcerated.

M.N. 199. Dr. Ransome.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows the anterior portion of the penis. The glans penis is the site of a massive, nodular, cancerous growth, elephantine in its proportions. A glass rod is passed along the urethra. The mass of the growth lies on the superior aspect of the organ.

M.N. 200. D.B. 1658.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows the anterior portion of the penis; the glans is the site of a nodule of squamous epithelioma, and the new growth has also extended to the prepuce. The surface of the growth, though irregular, does not show ulceration. At the orifice of the urethra the tumour is divided up into small nodules.

M.N. 2987. Mr. Southam.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows the anterior portion of a penis which has been bisected. Springing from the epithelium of the glans penis is a papillary, squamous epithelioma, which has not only caused an enormous swelling at this point, but has burst through the skin as a fungating mass at two separate areas. There is a condition of marked phimosis, and a papillary mass is protruding through the preputial orifice. A glass rod indicates the position of the urethra, which is constricted but not involved in the growth.

M.N. 2989.

PENIS: Epithelioma. 58 : 66 · 1

The specimen shows one half of the anterior portion of the penis. Situated in the glans and extending backwards along the body of the penis is an epitheliomatous tumour, arranged in somewhat lobulated masses and composed of friable cellular tissue. The skin over the penis has been removed, but there has been no breaking through of the tumour.

M.N. 2992. Mr. Southam.

PENIS: Epithelioma. 58 : 66 · 1
56 · 2 : 67 · 1

The specimen shows the penis with the scrotum and testicles, removed by operation. The body of the penis is the site of a fungating epithelioma, which is seen on the surface of the skin in two areas. The larger one is composed of a multitude of papillary processes which give an irregular surface to the tumour. The smaller one is more recent and has more of the appearance of an ulcer of the skin. The growth has extended back into the angle between the penis and scrotum, and has involved the skin of the latter. The penis is much shortened and there is some superficial erosion at the orifice of the urethra. At the back of the specimen the section exposes the testicle in the tunica vaginalis on each side. On the right side is a hydrocele. A thread of blue glass has been placed in the vas deferens on each side, and a red glass rod indicates the opening of the urethra.

M.N. 3176. D.B. 4397. May 2, 1905. Mr. Thorburn.

PENIS: Epithelioma. 58 : 66 · 1

A squamous epithelioma has grown in the region of the frenum, and has extended over the surface in all directions. The outer aspect is irregular, and shows numerous small projections and minute hæmorrhages, especially near the margin. The edge is slightly everted in some parts.

The patient was a man aged 60 years. He had been circumcised 2 years previously, and 18 months later he first noticed a small nodule just external to the urinary meatus, which gradually extended. The inguinal glands were not affected.

M.N. 3212.

PENIS: Epithelioma. 58 : 66 · 1

The specimen consists of the anterior part of the penis. A glass rod indicates the position of the urethra. The greater part of the glans penis is occupied by an epitheliomatous growth, which extends back on one side as far as the corona, and is sharply marked off from the rest of the glans by a raised everted edge. The growth at the site of the urinary meatus is deeply excavated, and its surface is roughened.

M.N. 3247.

PENIS: Epithelioma. 58 : 66 · 1

The glans penis is the site of an ulcerating epithelioma, which occupies the greater part of its surface. The edge of the ulcer, though well defined, is slightly raised above the level of the surrounding surface. The floor of the ulcer is deeply excavated in parts, and is dotted over with minute points of hæmorrhage.

M.N. 3443. Mr. Southam.

PENIS AND TUNICA VAGINALIS: Epithelioma and Hydrocele. 58 : 66 · 1
56 : 67 · 1

The specimen shows a vertical section of the anterior portion of the penis. There is a condition of marked phimosis. The glans and anterior part of the corpora cavernosa are occupied by an epitheliomatous growth, which has assumed a somewhat papillary form, and has caused great distortion of the urethra. There can also be seen a large, thin-walled cyst (opened anteriorly) which contained hydrocele fluid. Below and in front of this is situated the testis in the tunica vaginalis. A portion of the cord projects at the back of the specimen. Operation March, 1897.

M.N. 3723. D.B. 4780. Dec. 6, 1905. Mr. Platt.

PENIS: Carcinoma of the Urethra. 57 : 66 · 1
57 : 55 · 3

The penis has been divided longitudinally, and on the cut surface may be seen a mass of tumour occupying the cavernous tissue anteriorly and extending into the glans. In the midst of the tumour mass may be seen the remains of an abscess. This had been opened in January, 1905, and since then a sinus had persisted, with a good deal of inflammation round it. In September, 1905, the case was treated for the inflammation round the sinus, but after that time the tumour grew rapidly and amputation was performed in December 1905. The glands of the inguinal region were enlarged at the time of operation.

Microscopically the tumour is a carcinoma.

There was a history of injury to the penis when the patient was 4 years old, and for 4 years thereafter a catheter was used. Then there was an interval of 35 years, during which he was free from trouble. The patient was 50 years of age.

SCROTUM: HYPERTROPHIC LESIONS.

M.N. 246. June, 1882. Mr. Whitehead.

SCROTUM: Elephantiasis. 59 : 62
81 : 62
82 : 62

The specimen shows a portion of skin and subcutaneous tissue. The surface of the skin is very granular, and here and there are a number of outstanding processes, which are more polypoid than warty. Anteriorly the whole of the surface consists of little rounded processes of epithelium. A portion of the penis is seen at the upper part of the specimen. The skin as a whole is fairly normal in appearance, but at the free end it has been converted into a dense mass of rounded papillary processes of various sizes. The subcutaneous tissue consists of a uniform white overgrowth of fibrous tissue.

The microscopic structure consists in a very extensive overgrowth of fibrous tissue in bundles, traversing the scrotal tissue in different directions; among them are strands and foci of cellular infiltration. The epithelial covering is very irregular.

SCROTUM: MALIGNANT TUMOURS.

M.N. 3543. D.B. 4672. July 31, 1905. Mr. Collier.

SCROTUM: Squamous Epithelioma. 59 (81) : 66 · 1

The specimen shows a portion of scrotal tissue, which was the site of markedly projecting squamous epithelioma. The outer surface of the tumour is divided up into papillæ, and the surface of section presents the white, pearly appearance, characteristic of squamous epithelioma.

The patient was a man aged 62 years, who had suffered from a growth of the scrotum for 12 months. The glands in the groin were not affected. The growth was removed July 22nd, 1905.

FEMALE GENERATIVE ORGANS.

VULVA: BENIGN TUMOUR.

M.N. 1671.

VULVA: Papilloma. 61 : 64 : 6
81 : 56 · 3

This preparation consists of a mass of warty growths, closely aggregated, and of various sizes. It was taken from the pudenda of a person suffering from syphilis.

VULVA: MALIGNANT TUMOUR.

M.N. 2295. Mr. Stanmore Bishop.

LABIA and CLITORIS: Squamous Epithelioma. 61 : 66 · 1

The specimen shows the tumour growing in the form of multiple lobulated masses, the surface of which gives evidence of a tendency to break up and undergo hæmorrhage.

There is a history of three years' duration. The patient recovered after the excision.

VULVA: CYST.

M.N. 2904. D.B. 3630. Nov. 23, 1897. Mr. Jones.

SEBACEOUS CYST of the LABIUM. 61 : 67 · 1

UTERUS: PUERPERAL CONDITION.

M.N. 2100.

UTERUS: Post Partum. 67·1:—

The specimen shows the uterus in the normal condition immediately after labour.

UTERUS: INFLAMMATION.

M.N. 2040.

UTERUS: Endometritis. Polypus. Cysts of Cervix. 63 : 52 · 2
63 : 63
63 · 1 : 67

At the apex of the uterine cavity there is a thin polypus projecting downwards. The mucous membrane lining the rest of the cavity is somewhat rough from endometritis. The wall of the cervical canal displays numerous small cysts in its substance.

M.N. 2117. Dr. Cullingworth.

UTERUS: Abscess. 63 : 54 · 5

The abscess has formed in the tissue at the attachment of the broad ligament to the right side of the uterus. The abscess cavity is surrounded by a thick zone of tissue formed, in part at least, by the muscular wall of the uterus. The interior of the cavity is covered by a rough layer of inflammatory deposit, and at the back there is a perforation leading to the rectum.

UTERUS: SPECIFIC INFLAMMATIONS.

M.N. 3390. D.B. 2588. June 5, 1894. Dr. Lloyd Roberts.

UTERUS and FALLOPIAN TUBES: Tuberculosis. 63 : 56 · 1

The lining mucous membrane of the uterus is granular and thickened. The left Fallopian tube is dilated, and elongated, and its lumen is occupied by a mass of caseous debris.

On microscopic examination the uterine wall presents extensive inflammatory infiltration of the mucous membrane with foci of necrosis, but no development of giant cells. There has also been an extensive destruction of the gland structure.

M.N. 3755A. D.B. 2818. P.M.M. 1824, No. 42. Dr. Dreschfeld.

UTERUS: Tuberculosis. 63 : 56 · 1

The uterus shows on its peritoneal covering a multitude of miliary tubercles, and the mucous membrane of the uterine cavity is covered by tuberculous granulation tissue.

The patient was a female aged 27, who suffered from tuberculous peritonitis and malignant endocarditis of the mitral valve. The microscopic examination of the vegetations failed to show the presence of tubercle bacilli. The lungs were free from recent tuberculosis, but localised abscesses were found in and around the liver. The spleen and kidney were free from tuberculosis.

UTERUS: BENIGN TUMOURS.

M.N. 226.

UTERUS: Myoma. 63·64:1

The outer part of the uterus shows a regularly smooth peritoneal covering. Enclosed within a well-defined capsule of uterine muscular tissue is a large solid mass of growth, which, on microscopical examination, shows the typical structure of a myoma.

M.N. 1721. D.B. 865. Mr. Jones.

UTERUS: Subserous Myoma. 63:64·1

The tumour presents a rounded kidney-shaped form. The surface is comparatively smooth. It is solid throughout, and has the characteristic meshwork arrangement of a myoma.

Microscopic section shows the muscle fibres arranged in strands running in various directions. The blood-vessels, as a rule, are well formed, and many of them are surrounded by a clear zone of non-cellular material. Large areas of the tumour are degenerating.

M.N. 2043.

UTERUS: Fibroma. 63:63·2

The uterus has been opened to show the presence of an enormous polypus originating in the region of the fundus and projecting well beyond the cervix uteri. The wall of the uterus is the seat of many interstitial and subserous myomata.

The polypus, on microscopic examination, is found to be composed of fibrous tissue; the lymph spaces and blood-vessels are very much dilated, and many of them are occupied by a meshwork of fibrous filaments forming very delicate thrombi.

M.N. 2046. D.B. 1034. P.M.M. 1889, No. 153. March 4, 1890.
Dr. Leech.

UTERUS AND APPENDAGES: Polypus of Uterus. 63:64·7

The uterus has been laid open by a vertical mesial incision. At the fundus there is a pear-shaped sessile polypus, which in the recent condition was soft and covered by mucous membrane. It completely filled the uterine cavity, distending its upper part.

The patient was a woman aged 48, who suffered from metrorrhagia and anæmia.

M.N. 2048.

UTERUS: Myoma. 63:64·1

The specimen shows the uterus with the cavity laid open by a vertical mesial section. In the wall of the cavity, at the fundus, the section displays the presence of a submucous myoma about the size of a cherry. The mucous membrane has been incised and retracted, and the tumour has been divided in two by the same incision. The tumour presents the typical myomatous structure.

M.N. 2049. Dr. Cullingworth.

UTERUS: Polypus. 63:64·1

The uterus and vagina have been laid open vertically by a posterior incision. In the cavity of the uterus, which is somewhat dilated, is found a rounded polypus springing from the fundus.

M.N. 2051.

UTERUS AND APPENDAGES: Myoma. 63:64·1

On the left side of the fundus there is a tumour about the size and shape of a small apple, embedded in the wall of the uterus. The cut surface shows the typical whorled structure of a myoma. The presence of the tumour has caused distortion of the cavity of the uterus.

M.N. 2052.

UTERUS: Myoma, partly Calcified. 63 : 64 · 1 (42 · 9)

In the walls of the uterus a rounded myoma has formed of the size of a tangerine orange. The greater part of the tumour tissue is calcified, hence the white granular appearance of the cut surface.

M.N. 2056. Dr. Cullingworth.

UTERUS: Myoma. 63 : 64 · 1

The specimen consists in a large polypus removed from the uterus: it has been divided by an incision passing through the pedicle. The outer surface is covered by a shreddy, partly macerated layer of mucous membrane. The cut surface shows the whorled and fasciculated appearance characteristic of myoma, and microscopically there are observed areas of myxomatous degeneration among the myomatous tissue.

M.N. 2057. Mr. Turner.

UTERUS: Myoma. 63 : 64 · 1

The walls of the uterus are enormously thickened by a multitude of interstitial myomata of various sizes. There are also sessile and pedunculated subserous myomata; and there is a submucous myoma at the summit of the cavity of the uterus.

M.N. 2058. Mr. Southam.

UTERUS: Myomata. 63 : 64 · 1

Buried in the posterior wall of the uterus, near the fundus, are two small, typical, interstitial "fibroids," each the size of a cherry. The wall of the uterus has been injected, but the injection has not passed into the substance of the two tumours.

M.N. 2059.

UTERUS: Myoma. 63 : 64 · 1
63 · 1 : 64 · 1

The walls of the uterus are very greatly thickened. Its cavity is dilated, and at the fundus is a rounded interstitial myoma which projects slightly into the cavity. From the left side of the cervical canal a rounded polypoid myoma projects into the vagina.

M.N. 2062.

UTERUS and APPENDAGES: Multiple Subserous Myomata. 63 : 64 · 1

The specimen is the uterus with the broad ligament passing from the fundus on either side. Under the peritoneal covering of the body of the uterus are situated the rounded myomata.

M.N. 2065. Dr. CULLINGWORTH.

UTERUS: Myoma. 63 : 64 · 1
63 : 62 · 1

On the serous surface of the uterus are two rounded projecting subserous myomata of typical appearance. The wall of the uterus is much thickened (hypertrophied), and the cavity much enlarged.

M.N. 2066.

UTERUS: Myoma. 63 : 64 · 1

Attached to the posterior aspect of the fundus is a large rounded subserous myoma, the cut surface of which presents the typical whorled appearance of this tumour. On the anterior aspect of the uterus are several smaller myomata.

M.N. 2067. Mr. G. Southam.

UTERUS: Myoma. 63 : 64 · 1

The specimen is a small block of tissue which has been cut from a myoma of considerable size, and of the subperitoneal variety. The peritoneal surface is considerably roughened, and the cut surface shows the characteristic whorled and interlacing arrangement of the bundles of non-striped muscular tissue. There are no signs of degeneration.

M.N. 2073.

UTERUS: Myoma. 63 : 64 · 1
OVARY: Cystoma. 65 : 67 · 5

The preparation shows small subserous and "fibroid" tumours, situated on both anterior and posterior surfaces. The left ovary is the seat of a small cystic formation.

M.N. 2080.

UTERUS: Polypus. 63 : 64 · 7

The uterus has been laid open, and springing from the fundus there is seen a polypus, the stem of which occupies the cavity of the uterus, while the expanded head has filled up the dilated cervix. In the centre of the head a cavity is formed, the result of an abscess, the lining of which presents the typical rough, necrotic appearance of a "pyogenic membrane."

The microscopic examination shows that the growth is a mucoid polypus, and also displays a general infiltration of the tissue with inflammatory cells.

M.N. 2090. Dr. Cullingworth.

UTERUS: Myoma. 63 : 64 · 1

On the uterus is an old, subserous tumour, growing from the anterior surface, low down. The tumour itself forms a large ovoid mass which entirely conceals the vagina and uterus when viewed from the front. It has a somewhat irregular surface, and its interior, shown by section, presents the typical appearance of a myoma.

M.N. 2270. D.B. 4611. Mr. Stanmore Bishop.

UTERUS: Myomata 63:64·1

The uterus forms a large irregular mass, the bulk of which is composed of rounded interstitial myomata. One of the myomata is soft, and myxomatous in appearance. The others are composed of muscular tissue of typical appearance and consistency.

The patient was 44 years of age. The presence of the tumour was noticed twelve months before the operation at which the uterus was removed.

M.N. 2842. D.B. 4102. P.M.S. 319. May 28, 1903. Mr. Thorburn.

UTERUS and APPENDAGES: Pedunculated Subserous Fibro-Myoma. 63:64·1

This tumour has a long, thin pedicle, attaching it to the uterus, and another uniting it to the ovary. It is a pale, white growth, free from degeneration, and showing characteristic myomatous structure.

The patient was a female aged 56, who had been recently operated on for tumour of the breast. She died of syncope.

M.N. 2869. D.B. 470. P.M.M. 497. Nov. 18, 1903. Dr. Donald.

UTERUS: Diffuse Myoma. 63:64·1

There is an ill-defined thickening of the wall of the uterus, resembling a myoma. The characteristic irregular whorled arrangement of the strands of muscular tissue is to be noted. The growth is most marked at the fundus, and tapers off towards the cervix. The cavity is not distended, and the peritoneal surface is smooth.

The patient was a woman aged 49, married 13 years, with no children. She had irregular menstruation for 5 years, and for 4 months had profuse and purulent metrorrhagia. She was admitted to the Infirmary with a parovarian cyst, which was removed. The subsequent progress was normal; but 8 days afterwards the patient died suddenly in bed. The cause of death was heart failure due to fatty infiltration which was extremely advanced.

M.N. 2883. D.B. 4209. P.M.M. 576. April 25, 1904. Dr. Judson Bury.

UTERUS: Myoma. 63 : 64 · 1

Multiple interstitial myomata are seen in the wall of the uterus. The characteristic arrangement of the strands of tissue forming the tumour should be noticed. In the largest tumour there are areas of degeneration leading to softening. The cavity of the uterus can be seen as a crescentic-shaped space outside the largest of the tumours.

The patient, aged 35, suffered from chronic endocarditis, and her death was due to heart failure. She suffered also from chronic pelvic peritonitis.

M.N. 2928. Mr. Stanmore Bishop.

UTERUS: Myomata. 63 : 64 · 1

There is a number of subserous myomata in the uterus, several of which are very large. The largest one, on the lip of the specimen, has undergone partial calcification. The uterus has been opened vertically to show the presence of a submucous polypus. The head had become constricted as it projected from the os uteri, and gangrene had resulted. The cavity of the uterus contained foul pus.

The patient was a female aged 55. She had flooding at her periods for 18 years, and a year before admission she suffered from retention of urine. The uterus was removed by Doyen's method, the ovaries being left *in situ*. The patient died four years later from sarcoma of thte right shoulder, which grew very rapidly. She had, however, 3 years of apparently perfect health.

M.N. 2929. Mr. Stanmore Bishop.

UTERUS: Myoma. 63 : 64 · 1 (42 · 6)

The specimen consists of half of an enormous myomatous tumour, which commenced in the anterior wall of the uterus, and spread into the broad ligament of each side. The cut surface presents a somewhat vascular, solid growth,

with here and there areas of myxomatous degeneration giving rise to small cyst-like spaces.

Microscopic examination shows that the tissue is exceedingly vascular; and there are seen between the strands of muscular fibres bands of hyaline tissue or areas of myxomatous degeneration in which the tissue has been reduced to a structureless matrix.

The patient was aged 38.

M.N. 2930. D.B. 3350. Feb. 1, 1896. Mr. Stanmore Bishop.

CORPUS UTERI: Myoma with Cancer of the Cervix. 63 : 64 · 1
63 : 66 · 1

The uterus has been divided vertically in front to show the dilated uterine canal and the nodules of myomatous tissue in its walls. The disintegration of the cervical portion from the growth of epithelioma is also well seen.

The patient, aged 47, had a family of ten children.

M.N. 2931. Mr. Stanmore Bishop.

UTERUS: Myoma. 63 : 64 · 1

The uterus has been opened, and shows two large masses of myomatous growth. The upper one is typical, and the lower one is white and has softened in the centre from myxomatous degeneration.

The patient was aged 40.

M.N. 3575. D.B. 4619. Mr. Stanmore Bishop.

UTERUS: Myoma. 63 : 64 · 1

The uterus is the seat of a number of interstitial myomata, which on section present the characteristic whorled and fasciculated appearance.

The patient was a female aged 47. There was also a dermoid cyst of the right ovary.

UTERUS: MALIGNANT TUMOURS.

M.N. 2074. D.B. 974. P.M.M. 1889, No. 108. Dec. 12, 1889.

UTERUS: Carcinoma of the Cervix. 63 : 66 · 1

The cervical portion of the uterus is the site of a cancer which has caused considerable thickening of the uterine wall in this portion, and has also given rise to new growth in the tissues surrounding the cervix. Secondary growths were found in the liver, spleen and iliac lymphatic glands. There was enlargement also of the glands in the hilum of the liver, around the portal vein and the bile ducts.

The patient was aged 39, and suffered from dilatation of the heart, bronchitis and emphysema.

M.N. 2076.

UTERUS: Squamous Carcinoma. 63 : 66 · 1

The cervix of the uterus is the seat of a large excavating, ragged tumour, which had invaded also the anterior wall of the vagina.

Microscopic examination showed that the growth was a squamous carcinoma.

M.N. 2077. Mr. G. Southam.

UTERUS: Carcinoma of the Cervix. 63 · 1 : 66 · 1

The uterus has been divided by a vertical incision, and from the incision it can be seen that the cervix is the seat of an infiltrating tumour with a ragged surface. The fundus is rounded, but is not apparently invaded by the tumour. On the peritoneum covering the uterus may be seen a number of small nodules, and the tumour has apparently extended into the broad ligament, on the one hand, and into the vaginal wall, on the other.

M.N. 2102. D.B. 367. Oct., 1883.
UTERUS: Carcinoma. 63:66·3

The cavity of the uterus has been laid open by an anterior mesial incision. The walls are considerably hypertrophied, and the cavity somewhat dilated from the presence of a mass of tumour growth. The tumour consists of a group of broken-up processes of blood-stained tissue.

The microscopic examination shows the tumour to be composed of large cells, with a central nucleus, each one situated in a space of its own divided off from the others by a fine reticulum of fibres.

M.N. 2922.
UTERUS: Sarcoma. 63:65·2

This specimen is a sarcoma of the body of the uterus. The cavity of the uterus has been greatly dilated by the expanding growth of the tumour. The mass of the tumour has become much broken up. The fragments present the uniform opaque fine texture of a typical sarcoma.

The microscopic section shows that the tumour is a typical small spindle-celled sarcoma. The tissue is composed of spindle cells, lying in a delicate matrix and arranged to some extent in bundles, or strands, with very thin-walled blood-vessels running amongst the strands.

M.N. 3459. D.B. 1904. Jan. 26, 1903. Sir W. J. Sinclair.
UTERUS: Carcinoma of the Cervix. 63·1:66·1

The specimen shows the uterus, bladder and rectum. The uterus has been transformed by the cancerous growth into an irregular mass which has expanded, especially on the anterior aspect. The cervix has been destroyed by ulceration. The bladder and rectum are apparently not involved.

M.N. 3740. D.B. 4271. Dec. 20, 1904. Mr. Burgess.
UTERUS: Carcinoma of the Cervix. 63:1·66·1

The uterus has been divided into two portions by a horizontal incision. Surrounding the os uteri and extending as a flat disc-like growth all round the cervical portion is a squamous epithelioma.

Microscopically the tissue is found to be composed for the most part of growing cells. There is very little formation of keratin.

UTERUS: CYSTS.

M.N. 2115. D.B. 2754.

UTERUS: Cystoma. 63:67·5

On the fundus of the uterus is a rounded and much lobulated tumour which, on section, is seen to contain a large number of small cysts with colloid contents. On microscopic examination these cysts were found lined by columnar epithelium. There is no history obtainable.

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FALLOPIAN TUBES: INFLAMMATIONS.

M.N. 2926. Mr. Stanmore Bishop.

FALLOPIAN TUBE and OVARY: Salpingitis and Ovarian Abscess. 65 : 54 · 5
64 : 54 · 5

This specimen is a dilated, thickened, and somewhat irregular Fallopian tube, and situated in the concavity of it is a rounded cyst-like structure about the size of a tangerine orange. In the posterior wall of it a window has been cut. This structure represents the ovary, which had been the site of an abscess. In the angle between the uterine end of the tube and the ovary, is seen the cut end of the broad ligament, very much thickened. The serous surface covering all these structures is roughened by inflammatory exudation. The abscess was of gonorrhœal origin.

M.N. 2927. Mr. Stanmore Bishop.

OVARIES and FALLOPIAN TUBE: Abscess. 65 : 54 · 5
64 : 54 · 5
65 : 67 · 5

The upper specimen is the left ovary, which has been much enlarged by the formation of an abscess. The somewhat dilated and flattened Fallopian tube is adherent to the upper surface of the mass, and it was also the seat of inflammation. The peritoneal covering is rough and irregular from fibrous adhesions. The lower specimen is a Fallopian tube considerably dilated, and of the tortuous sausage-shape characteristic of suppurative distension of the tube. The ovary is replaced by a multilocular cyst. There are signs of a considerable amount of peritoneal adhesions over these structures.

FALLOPIAN TUBES: CYSTS.

M.N. 2083. D.B. 935. Nov. 21, 1889.

UTERUS and APPENDAGES: Hydro-Salpinx. 64 : 67 · 1

The specimen consists of the uterus and appendages. The outer half of the left Fallopian tube is elongated and dilated into a long sausage-like swelling, and bent upon itself at an acute angle. Its walls are thin and smooth, and the contents are apparently clear fluid.

M.N. 2259. D.B. 4607. Mr. Stanmore Bishop.

FALLOPIAN TUBE: Hydro-Salpinx. 64 : 67 · 1

The uterine end of this tube is elongated, but otherwise normal. The free extremity is closed, the fimbria retracted, and the ampulla is greatly dilated by the accumulation of a fluid which at the time of removal was translucent. The ovary was flattened out on the tumour. There was also myoma of the uterus.

The patient was 41 years of age and had been suffering for 12 months from metrorrhagia. There were no special symptoms pointing to hydrosalpinx.

M.N. 3393. D.B. 2389. Feb., 1894.

FALLOPIAN TUBE: Hydatid of Morgagni. 64 : 67 · 3

The specimen consists of the uterus and its appendages. Attached by a long pedicle to the distal end of the left Fallopian tube is a small, clear, thin-walled cyst (hydatid of Morgagni).

M.N. 3511. D.B. 4691. P.M.M. 755. Oct. 3, 1905. Dr. Judson Bury.

FALLOPIAN TUBE: Hydro-Salpinx. 64 : 67 · 1

The left oviduct is seen in a state of cystic distension, most marked at its proximal end, giving the whole a coiled, tortuous appearance. The contents are clear and watery. The specimen is from a case of acute caseous pneumonia. (See lung M.N. 3509—25 : 56·1.)

OVARY: BENIGN TUMOURS.

M.N. 3713. Mr. Stanmore Bishop.

OVARY: Fibroma. 65:63·2

The specimen consists of an irregularly oval tumour which has replaced the ovary. Its outer surface is smooth. The cut surface shows the characteristic dense fasciculated structure of a fibroma.

Microscopically the structure of the growth is that of a typical fibroma.

The patient was a woman, aged 52.

OVARY: MALIGNANT TUMOURS.

M.N. 2079. Dr. Cullingworth.

OVARY: Fibro-Sarcoma. 65 : 65 · 3

The surface shows large nodular projections, and the growth is encapsuled, firm, and of a whitish colour. Section shows a tissue of a somewhat uniform, more or less granular appearance, traversed by distinct bands of fibrous tissue. These are most marked at the periphery, where they are continuous with the capsule. In the centre of the section there is an irregular cavity surrounded by a soft, more vascular area of growth.

Microscopically the tumour shows spindle cells, round cells, and fully formed fibrous tissue.

M.N. 2097.

OVARIES: Sarcoma. 65 : 65 · 1

The specimen consists of the uterus and its appendages. Each ovary is the site of a rounded tumour, the size of a tangerine orange. The tumours have a homogenous, dense consistence, and there are a few cystic spaces containing colloid material.

The microscopic structure of the tissue resembles that of a large round-celled sarcoma.

M.N. 3426. D.B. 4413. May 10, 1905. Dr. Donald.

OVARIES: Adeno-Carcinoma. 65 : 66 · 4

Both ovaries are shown in this specimen: the right is much larger than the left. On the outer surface there is hob-nail unevenness. On the cut surface the tissue is seen to be friable, and to have the semi-gelatinous appearance of a growth, predominantly epithelial. Here and there a small hæmorrhage has occurred.

On microscopic examination the growth was found to be a typical example of adeno-carcinoma. There was a very small amount of connective tissue matrix and the epithelial cells were columnar in type, and arranged in glandular form.

OVARY: CYSTS.

M.N. 2086. Mr. Turner.

UTERUS AND APPENDAGES: Ovarian Cyst. 65:67

Springing directly from the right ovary is a smooth oval cyst, the size of a tangerine orange, apparently monolocular.

M.N. 2087.

UTERUS AND APPENDAGES: Ovarian Cyst. 65:67

The specimen shows a portion of the uterus, and a large cyst lying adjacent to it in the broad ligament. The cyst is smooth-walled, but displays two bosses of tissue situated on the outer surface of the wall. The wall is thin, and the contents are translucent. The Fallopian tube stretches half-way round the circumference of the cyst. There is no sign of the ovary.

M.N. 2091.

OVARY: Multilocular Cyst. 65:67·5

The specimen shows a small portion of the wall of a large cyst. On its inner aspect a subsidiary cyst occurs, and has been laid open, and reveals a still further series of small cysts springing from its inner wall.

M.N. 2094. Dr. Walter.

OVARY: Dermoid Cyst. 65 (?) : 67·3

The specimen shows a cyst with a moderately thick wall, the inner surface of which is covered with a somewhat flaked irregular layer of sebaceous material secreted by the layer of squamous-celled epithelium lining the cavity.

M.N. 2095.

OVARY: Dermoid Cyst. 65 : 67 · 3

The specimen is a thin-walled, monolocular cyst, incised and everted. The everted (internal) surface shows a papilliform growth at the periphery, on which are seen a few fine hairs. The rest of the wall is smooth. The cyst contained in the recent state pulpy material and hairs—a tuft of the latter is seen tied to the surface of the cyst.

M.N. 2096.

OVARY: Dermoid Cyst. 65 : 67 · 3

The specimen is a thin-walled, oval cyst, about the size of an orange. In the upper part of the specimen there is seen attached to the wall a piece of bone bearing three well-formed teeth. The inner surface shows a diffuse growth of fine hair.

M.N. 2252. Mr. Stanmore Bishop.

OVARY: Cystoma. 65 : 67 · 5

The specimen consists of one very large, smooth-walled cyst, with several smaller ones seen as bulgings on its walls. The outer surface is roughened in places, due to the remains of peritoneal adhesions. The following are the clinical notes:—Patient aged 67. The tumour had been noticed for many years and had been tapped four times, and each time several quarts of fluid had been removed. It was last tapped a month before operation. The tumour entirely filled the abdomen, reaching the level of the ribs. It was not movable, and was somewhat painful. There was some general emaciation. The cyst was found firmly adherent to a large area of the anterior abdominal wall, from which it was peeled off. It was also adherent for 3 inches to the omentum, but not to the intestine. One strong fibrous band attached it to the diaphragm.

M.N. 2253. D.B. 4606. Mr. Stanmore Bishop.

OVARY: Cystoma Papilliferum. 65 : 67 · 5 (64 · 6)

The villous surface presented in this specimen is the inner surface of the papillomatous cyst. The pedicle sprang from the left broad ligament. A year after the operation for removal of the cyst of the ovary the patient was operated on again for papilloma of the Fallopian tube of the opposite side (right). There was at this time a growth of the same character in the pouch of Douglas and there was a large amount of gelatinous matter in the peritoneum.

The patient recovered, and had, eighteen months later, hysterectomy for cancer of the cervix.

Microscopic examination shows that the tissue is composed of processes of cellular, very vascular, loose connective tissue covered with columnar epithelium.

M.N. 2256. D.B. 4618. Mr. Stanmore Bishop.

OVARY; Dermoid Cyst. 65 : 67 · 3

The cyst has been laid open, and springing from the wall may be seen a tooth covered by enamel. There is also in the wall a fragment of bone. The cyst contained somewhat fluid sebaceous material. The omentum and a loop of small intestine were adherent to the cyst wall. It sprang from the right ovary and it was found with its pedicle twisted and its main bulk lodged in the left side of the pelvis. Over it was spread the elongated right Fallopian tube.

The patient was a girl, aged 14.

M.N. 2257. D.B. 4614. Mr. Stanmore Bishop.

OVARY: Cyst. 65 : 67 · 1
UTERUS: Chronic Metritis. 64 : 52 · 1 (27 · 2)
FALLOPIAN TUBE; Pyosalpinx. 38 · 3 : 55 · 7

The cyst was found in the pouch of Douglas, hidden by an adhesion of the uterus to the rectum above. These were removed, by operation, from a patient aged 39.

M.N. 2258. Mr. Stanmore Bishop.

OVARY: Dermoid Cyst. 65 : 68 · 3

The specimen consists in a portion of the cyst wall with hair attached, removed by operation from the broad ligament on the right side. The patient was a female aged 31.

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M.N. 2787. D.B. 846. June 20, 1888. Dr. Martin.

OVARY: Cyst. 65 : 67

The specimen shows the fundus of the uterus and the appendages on one side. The ovary has been entirely replaced by a thin-walled cyst, about the size of a cocoanut, apparently unilocular and containing clear contents.

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M.N. 2814. D.B. 4030. P.M.M. 365. Jan. 13, 1903. Dr. Dreschfeld.

OVARY: Multilocular Cyst. 65 : 67 · 1
65 : 33

The left ovary is enlarged to form a tumour, about four inches long, composed of cysts of various sizes containing yellowish turbid thin fluid. The walls of the large cysts are thick and opaque, while the smaller cysts have thin translucent walls. The pigmentation is due to extravasation of blood. The right ovary is normal.

The patient, aged 58, died from cancer of the stomach. (See stomach M.N. 2815—34 : 66 · 3).

M.N. 2965. D.B. 4075B. P.M.M. 408. May 16, 1903. Dr. Dreschfeld.

OVARY: Cyst. 65:67·5
65:33·1

The specimen consists of the uterus and adnexa. The left ovary is uniformly enlarged, to the size of a plum. The surface is pale grey and smooth. On section there was a pale grey, firm capsule of fibrous tissue, $\frac{1}{8}$—$\frac{1}{4}$ in. thick, enclosing a mass of red coagulum which had a colloid appearance. In places the contents have shrunken.

Microscopic section shows in the capsule the remains of ovarian tissue. The lining of the cyst had lost its epithelium. The right ovary was occupied by a multilocular cyst with gelatinous contents.

M.N. 3299. D.B. 4225. Aug. 20, 1904. P.M.M. 618. Dr. Dreschfeld.

UTERUS and APPENDAGES: Malignant Cystoma of the Ovary. 65:67·5

Both ovaries are the seat of multiple cystic enlargement, the right being the larger, and almost the size of a fœtal head. The left is about $\frac{1}{3}$ of this size. For the most part the cysts have thin, transparent walls, and contained reddish-brown, slightly turbid, watery fluid. The cysts are of all sizes up to that of a plum. On the right side is a cyst, the size of a tangerine orange, which on section shows thicker walls, and is of firmer consistence than the others, and at one part presents an irregularly nodular mass of soft, cream-coloured growth, projecting into its cavity.

Microscopic examination shows that the covering of the papillomatous process is columnar epithelium. The stroma is very cellular.

The patient, a female aged 69, was extremely emaciated, and showed diffuse, chronic proliferative peritonitis, but no secondary growth.

M.N. 3324. D.B. 4360. Mar. 16, 1905. Dr. Donald.

OVARY: Dermoid Cyst; Torsion of Pedicle. 65:67·3

The specimen shows one half of a large dermoid cyst of the ovary. The surface is much injected, and the pedicle is twisted. The outline is regular and the capsule is thick and opaque, and has the appearance of parchment. A small,

hydatid-like cyst, with a thin pedicle of attachment, is seen suspended from the outer aspect of the cyst. The cut surface shows that the cyst is divided into two compartments, each filled with soap-like sebaceous matter. In the lower and larger of the two compartments is situated a formed structure, in which cartilage and other tissues are present. In the soap-like contents delicate hairs are embedded.

M.N. 3363. D.B. 4346. P.M.M. 698. Mar. 13, 1905. Dr. Judson Bury.

OVARY: Cystoma. 65 : 67 · 5
UTERUS: Myoma. 63 : 64 · 1

The left ovary is the seat of a small tense cyst which has for the most part translucent walls, though they show in places patches of opaque white thickening The cyst was united to the pelvic wall and to the bladder by firm adhesion. It is unilocular and its contents are a thin turbid fluid of a bronze-green colour. On its walls are large clusters of small clear yellow cysts, and at one place these have extended beyond the walls into the cavity of the peritoneum. The uterus is small, thin and fibrous, and the fundus is the seat of a small fibrous growth the size of a tangerine orange, and also of a still smaller fibroid close to it.

Microscopic section of the myoma shows a typical appearance with a large amount of hyaline matrix.

The patient was a female, aged 47, who died from pernicious anæmia.

M.N. 3409. D.B. 3317.

OVARY: Dermoid Cyst. 65 : 67 · 3

The specimen consists of the uterus and its appendages. The left ovary is enlarged, and is the seat of a unilocular cyst with thick walls lined by cutaneous tissue, and filled with soft sebaceous matter containing a few long hairs.

M.N. 3416. D.B. 4590. P.M.S. 449. June 6, 1905. Mr. Southam.

OVARY: Cystoma. 65 : 67 · 5

The left ovary is the seat of an enormous, thick-walled, multilocular cyst, weighing 101 ozs. Its surface is pale, but the consistence and opacity of the walls vary greatly. The cyst contents are clear and mucoid, and in some of them were found clay-coloured, stringy masses, resembling fibrin. There were no signs of hæmorrhage. The ovary is indistinguishable. The pedicle is small, firm, and fibrous, and there were a few firm adhesions to neighbouring viscera. The right ovary is pale, and its surface is puckered, but there are no cysts.

Microscopically the tissue shows cystic spaces lined by columnar epithelium. There is a large matrix of fibrous, cellular, and myxomatous tissue, with here and there nodules of columnar epithelium.

The patient was a female, aged 39. At the autopsy there were found diffuse, chronic, proliferative peritonitis, and secondary growth in peritoneum, liver, and pleura. (See diaphragm M.N. 3415—83 : 67·5, and peritoneum M.N. 3438—38 : 67·5.)

M.N. 3473. D.B. 4597. June 10, 1905. Mr. Milner.

OVARY: Papillomatous Cyst. 65 : 67 · 5 (64 · 6)

The specimen consists of one half of a growth removed from the right ovary and Fallopian tube. The capsule is composed of dense, greyish-white, fibrous tissue, and varies in thickness. When removed at operation, the capsule of the growth was quite intact. On section, the tumour presents a mottled appearance, areas of dark-coloured tissue being interposed between areas of greyish tissue.

Microscopically, the tumour presents the structure of a papilliferous cyst. The papillæ are covered with short, columnar epithelium, and the stroma is very highly vascular.

M.N. 3714. Mr. Stanmore Bishop.

OVARY: Cystoma, Torsion of Pedicle. 65 : 67 · 5

The specimen consists of half of a monolocular cystic tumour of the ovary. It is filled by chocolate-coloured colloid substance. The tumour has been distorted and discoloured by extravasation of blood owing to twisting of the pedicle.

M.N. 3715. D.B. 4622. Dec. 17, 1900. Mr. Stanmore Bishop.

OVARY: Cystoma. 65 : 67 · 5

The specimen consists of the greater part of a cystic tumour of the ovary, which has become carcinomatous. On the upper part are seen the enlarged Fallopian tube and an enlarged hydatid of Morgagni. On the cut surface the cysts are seen; they are small, multiple, and filled with colloid contents. The rest of the tumour is solid and dense.

Microscopic examination shows the tumour to be a columnar carcinoma. Part of it consists of solid cylinders of growth and part of tubules lined by columnar epithelium.

The patient was aged 55.

M.N. 3716. Mr. Stanmore Bishop.

OVARY: Cystoma Papilliferum. 65 : 67 · 5 (64 · 6)

Attached to the body of the uterus (which is seen cut across) is a somewhat thick-walled unilocular cyst, the lining of which is generally smooth, but shows here and there papillary outgrowths. In the angles between the cyst and the uterus are observed papillary outgrowths on the peritoneal surface. One of these cut across is suspended in the upper part of the jar.

Microscopic examination shows that the epithelium covering the papillary outgrowths is present in very thick layers, forming somewhat dense masses resembling carcinoma.

BROAD LIGAMENT: CONGENITAL ABNORMALITIES.

M.N. 2754. July 2, 1895. Dr. Lloyd Roberts.

BROAD LIGAMENT: Teratoma. 66 : 14

The specimen consists of a section of tumour removed from the site of the broad ligament. It had also involved the Fallopian tube. The tumour has a somewhat lobulated character, and in some of the lobules there is a tendency to cyst formation; others are solid; some exhibit pigmentation from hæmorrhage. The tumour is a teratoma and microscopic examination showed it to be composed of embryonic nerve cells, muscular fibres, and various other tissues.

BROAD LIGAMENT: BENIGN TUMOURS.

M.N. 3405. D.B. 3696. Mr. T. Jones.

BROAD LIGAMENT: Fibroma. 66 : 63 · 2 (42 · 6)

This specimen consists of a large, well-defined tumour, presumably from the broad ligament. The main mass of the growth has the appearance of fibrous tissue, in which are scattered areas of myxomatous degeneration. There is a well-defined capsule, and in the region of the capsule a pseudo-cystic area of softening has formed, and in this region also there has occurred some degree of hæmorrhage.

From a woman, aged 47.

BROAD LIGAMENT: CYSTS.

M.N. 2088.

UTERUS AND ADNEXA: Parovarian Cyst. 66·1:67·1

In the broad ligament, on the right side, there is a thin-walled cyst about the size of a hen's egg, with a unilocular cavity, and slight pigmentation of the inner surface of the wall.

M.N. 2296. D.B. 4617. Mr. Stanmore Bishop.

PAROVARIUM: Cysts. 66·1:67·1

The peritoneum can be seen covering a portion of each cyst. They are unilocular, and contain clear fluid.

The patient was aged 39.

M.N. 2297. D.B. 4615. Mr. Stanmore Bishop.

PAROVARIUM: Cysts. 66·1:67·1

These cysts show extremely thin walls and clear contents. The Fallopian tube lies above and in contact with them.

The patient was aged 39.

M.N. 3523. D.B. 4274. P.M.M. 668. Dr. Harris.

PAROVARIUM; Cysts. 66·1:67·1

The left ovary is in contact at its outer end with a large, oval, thin-walled sac, the size of a large orange, freely movable. Over its surface the Fallopian tube can be seen stretched. The contents of the sac are clear. The cyst is very tense and apparently unilocular. The mucous membrane of the uterus is much congested,

LESIONS OF THE FŒTUS AND ITS MEMBRANES.

M.N. 379.

CHORION: Hydatidiform Mole. 68 · 2 : 42 · 6

A series of fine thread-like processes form the central stems, and from the sides of them delicate branches spring to which are attached bladder-like structures containing clear contents.

M.N. 380.

CHORION: Hydatidiform Mole. 68 · 2 : 42 · 6

The specimen shows a series of fine, thread-like processes, springing from the piece of membrane, and forming the central stems, from the sides of which delicate branches issue. To these are attached bladder-like structures, containing clear contents.

M.N. 381A, B.

CHORION: Hydatidiform Mole. 68 · 2 : 42 · 6

The specimen shows a piece of membrane bearing a series of fine, thread-like processes, on which are delicate branches, and to these are attached bladder-like structures containing clear contents.

M.N. 382. D.B. 1774A.

CHORION: Hydatidiform Mole. 68 · 2 : 42 · 6

The specimen shows the branching, tree-like process of a typical hydatid mole. Springing from a portion of the chorion (seen at the top of the specimen) by two or three delicate central stems, are seen fine processes bearing a group of bladder-like structures, with thin walls and transparent fluid contents.

M.N. 2101.

UTERUS: Retained Placenta. 68·2:28·2
63:62·1

A considerable portion of the uterine wall has been cut away, displaying the uterine cavity very much enlarged. The mucous membrane has the characteristic rough appearance left by detachment of the placenta. Attached to the wall, and projecting forward into the cavity, is a large shaggy mass of disorganized tissue, the remains of a retained placenta. The felted appearance of the surface of the placenta is due to the occurrence of suppuration in the cavity of the uterus.

M.N. 2108.

UTERUS AND APPENDAGES: Ectopic Gestation. 68·1:11

The right Fallopian tube has been laid open in the middle of its course, and there is seen situated here a number of villi at the site of a tubal gestation. The ovary of the same side shows a small unilocular cyst.

M.N. 2112.

FŒTAL MONSTROSITY. 68·1:12

The preparation shows the maldeveloped placenta and membranes, with umbilical cord and fœtus, but there is no differentiation of structures.

M.N. 2118.

FŒTUS: Malformation. 68·1:12

The umbilical cord and chorion are attached to a large oval mass, covered with skin bearing fine hairs. An incision shows that it consists of a thick-walled cyst, in the cavity of which is an irregular mass of structures, the chief elements of which are bone and cartilage.

M.N. 2267. D.B. 4616. Mr. Stanmore Bishop.

FALLOPIAN TUBE: Ectopic Pregnancy. 68.1.64: 16

The tube had not ruptured, but hæmorrhage had occurred into the tissues of the wall. The fimbriæ are seen swollen and infiltrated. The omentum was united to the wall of the sac, and on pulling it off the sac was torn. Through this opening the embryo can be seen enclosed in its membranes.

The patient was 36 years of age and was the mother of four children. She recovered from the operation.

M.N. 3580. D.B. 4715. Oct. 25, 1905. Dr. Donald.

SUBCHORIONIC HÆMATOMA from a CASE of TUBAL ABORTION: A Variety of Fleshy Mole. 68·2:33

The specimen consists of a complete ovum with its decidual covering derived from the tubal mucosa, altered during early pregnancy. The ovum had perished at an early date, but had been retained *in situ* for several weeks, during which the blood effused between the chorion and the decidua has become partially organised. The specimen has been cut open to expose the amniotic cavity. This is seen lined by the bluish amniotic membrane, and containing a little blood clot, also the small fœtus suspended by a short umbilical cord. The outer covering of the ovum is decidua and the thickness of the wall consists of blood clot, decidual tissue, and chorionic villi, the latter being widely separated by blood. The white areas are mainly "white thrombi." The anatomical site of the bulk of the blood is the "intervillous space."

MAMMA: INFLAMMATORY LESIONS.

M.N. 2995. Jan. 25, 1905. Mr. Wright.

MAMMA: Interstitial Mastitis. 69 : 53 · 2 (67)

The specimen shows the sections of both breasts suffering from mastitis. Each organ is considerably thickened. On the cut surface are seen large numbers of cystic spaces of various sizes. The inner lining of the spaces is smooth and the contents consist of inspissated inflammatory exudate. The tissue surrounding the spaces is pale pink in appearance and is composed of fibrous tissue.

Microscopical section shows the gland ducts dilated and the lumen filled with débris There is little or no tissue reaction around the majority of the acini, but in the neighbourhood of one of the larger ducts there is an extensive area crowded with leucocytes.

The patient was a married woman, aged 45 years. Four months before admission a swelling was noticed in the left breast, and a second one a month later in the right breast. They gradually increased in size and caused pain. In the breasts several fluctuating swellings could be made out, ill-defined, and surrounded by indurated tissue. The breasts were excised Jan. 25, 1905.

M.N. 3006. July 1, 1902. Mr. Thorburn.

MAMMA: Interstitial Mastitis, with Intra-cystic Papilloma. 69 : 53
69 : 67 (64 · 6)

The specimen is a thick vertical section taken through the centre of the breast, and including the nipple. The cut surfaces show marked increase of fibrous tissue, and are studded with minute cysts. One large cyst has been opened up, and is almost filled with a papillomatous growth springing from its interior. The lower part of the growth is pigmented from old hæmorrhage.

The patient was a woman, aged 36 years, who had suffered from a blood-stained discharge from the nipple for thirteen years. A tumour had been noticed for eight years.

Microscopic examination showed the growth to consist mainly of alveoli of epithelial cells. Operation: July 1, 1902.

M.N. 3054.

MAMMA: Chronic Interstitial Mastitis. 69 : 53

The breast has been bisected through the nipple. The gland tissue is somewhat swollen and more opaque than normal. The alveolar spaces are dilated and some of them contain inspissated inflammatory products. The gland tissue as a whole is somewhat small from senile atrophy.

M.N. 3646. Jan. 17, 1902. Mr. Wright.

MAMMA: Chronic Interstitial Mastitis. 69 : 55 · 1

The specimen shows a section of the mammary gland. The nipple is not retracted. Immediately under it there is a rounded mass, fibrous in appearance and definitely encapsuled.

Microscopic section shows that the mass consists chiefly of dense fibrous connective tissue, dotted over with minute blood-vessels, the endothelium of which is enlarged and stains clearly with hæmotoxylin. The gland tissue is surrounded by areas of cellular connective tissue, and at some points this cellular overgrowth is so abundant as to obscure the gland structure. Here and there, near the gland spaces, there is a dense accumulation of round cells. The blood-vessels in the areas of inflammation are dilated and congested. The specimen is an example of chronic mastitis.

The patient was a woman, aged 61 years. The swelling in the breast had been noticed for only three weeks. The breast was removed by operation, Jan. 17, 1902.

M.N. 3737. D.B. 4824. Feb. 6, 1906. Mr. Wright.

MAMMA: Chronic Interstitial Mastitis. 69 : 53
69 : 67 · 1

In the gland, which is slightly increased in size, cystic spaces have developed here and there, and there has been an overgrowth of fibrous tissue.

On microscopical examination there is seen a considerable amount of inflammatory reaction round the acini of the gland, the spaces of which are in some instances dilated by the accumulation of inflammatory débris.

The patient was an unmarried woman, aged 46 years. She had suffered from neuralgic pains in the left breast for several months. A cyst was noticed in the breast three months before the operation. The breast was removed on Feb. 6, 1906, and recovery was uneventful.

MAMMA: SPECIFIC INFLAMMATIONS.

M.N. 1756. D.B. 866. Mr. Jones.

MAMMA: Tuberculous Abscess. 69 : 56 · 1

The specimen presents a large cyst in the substance of the mammary gland. Its inner surface is comparatively smooth, and the wall is well defined in relation to the surrounding tissues.

Microscopic section of the wall shows that the inner surface is composed mainly of granulation tissue. The deeper layers of the wall consist of very variegated tissue. At some points there are areas which are densely infiltrated with round cells; at others fibrous connective tissue is developed, in the midst of which giant cells may be seen, and other very large cells with single nuclei.

MAMMA: BENIGN TUMOURS.

M.N. 1733. D.B. 2775.

MAMMA: Myxo-Fibro-Adenoma. 69 : 64 · 7

The specimen is a portion of the breast, in the substance of which there is a rounded, egg-shaped tumour, distinctly encapsulated, and exhibiting the tendency to cystic formation which is associated with the papillary growth seen in the substance of the tumour.

Microscopic section shows that the tissue is that of a myxo-fibro-adenoma. The spaces are lined by a layer of epithelium, and the tissue immediately under the layer is of a myxomatous character.

M.N. 1748.

MAMMA: Fibro-Adenoma. 69 : 64 · 7

The specimen consists of a large, irregularly lobulated mass of tumour growth, which on section has a dense alveolated appearance.

Microscopic examination shows that the tumour is a typical fibro-adenoma with areas of myxomatous degeneration.

M.N. 1749.

MAMMA: Fibro-Adenoma. 69 : 64 · 7

The specimen consists of an irregularly rounded tumour which has apparently been shelled out from the mamma in which it grew. The cut surface is variegated by the presence of epithelial areas in the midst of a somewhat cellular fibrous tissue, and one or two very minute cysts.

The microscopic examination shows a cellular fibrous matrix surrounding large numbers of small-sized glandular spaces lined by columnar epithelium.

M.N. 1754. Mr. Bowring.

MAMMA: Fibro-Adenoma. 69 : 64 · 7

The specimen consists in a large fibro-adenoma of the breast, which has formed a mass of a fibrous character showing irregular cyst-like spaces through its substance. It is rounded somewhat, and lobulated, but possesses a well defined capsule.

Microscopic examination shows that the tumour consists of fibrous tissue and somewhat sparse gland alveoli which are lined by glandular cubical epithelium.

M.N. 1776. Feb. 1885. Mr. Jones.

MAMMA: Fibro-Lipoma. 69 : 63 · 2 (63 · 1)

The specimen shows a portion of the breast, and at the upper end of it the nipple is seen. Below this there is a large tumour, which has grown beyond the level of the skin in a rounded lip-like process, with a generally smooth surface. At one side there is a deep excavated ulcer.

Microscopic section demonstrates the tumour to be a hard fibroma, composed essentially of non-cellular fibrous tissue, but showing groups of fat cells scattered through it.

M.N. 2981. Dr. Donald.

MAMMA: Myxo-Fibro-Adenoma. 69 : 64 · 7 (63 · 5) (63 · 2)

The specimen consists in a portion of a large tumour of the breast. The tumour was partly solid and partly cystic. The solid parts consist of myxomatous fibrous tissue, and beneath this is seen a large cyst which has been opened to show a cavity nearly filled with sprouting process. In the looser tissue there has been considerable hæmorrhage.

M.N. 3053. Oct. 16, 1902. Mr. Platt.

MAMMA: Fibro-Adenoma with Intra-cystic Growths. 69 : 64 · 7 (67)

The specimen shows a portion of the breast including the nipple. The breast has been the site of a tumour which has grown in lobules, displaying in their structure a large proportion of fibrous tissue, some of it white, some of it tending to become myxomatous. A number of cysts have developed, especially towards the nipple, and into each of these has grown a papillomatous process the expansion of which completely fills the cavity of the cyst.

The patient was a woman, aged 36 years, who had first noticed a small tumour in the breast, the size of a marble, eight years previously. Growth had been more rapid during the last nine months and other tumours in other parts of the breast had appeared during that time. The breast was amputated Oct. 16, 1902.

M.N. 3099. Nov., 1903. Mr. Colleir.

MAMMA: Papillomatous Fibro-Adenoma. 69 : 64 · 7 (67)

The gland has been divided by a mesial section. The nipple is not retracted, and the tumour has caused an extensive general enlargement of the breast. The cut surface shows the presence of two forms of growth. One, situated in the centre, in which there is a large amount of fibrous tissue with here and there clefts. These have the appearance of cysts which have been filled up by the growth of a single solid process. Surrounding this there are large cystic spaces, into the cavities of which extend branching papillomatous processes presenting on the surface numberless rounded nodules.

M.N. 3447. Feb. 21, 1905. Mr. Thorburn.

MAMMA: Fibro-Adenoma. 69 : 64 · 7

The specimen consists of a well-defined round tumour occupying the site of the mammary gland. The tumour is definitely encapsuled except at the upper and posterior part, where the capsule has been broken through by the expanding growth. The structure is cystic in form and has been filled up by

the growth of processes of myxomatous fibrous tissue of a somewhat papillary character with smooth surface. The tumour has formed a rounded prominence on the skin and at several points has shown a distinct tendency to burst through the surface. At these points the skin is abraded and discoloured, and ulceration has commenced. Running obliquely on the skin in the lower part of the specimen is seen the scar left from the former operation.

The patient was a woman, aged 33 years, who had for one year had a tumour the size of a goose-egg. This was removed three years previously, but two years later the growth recurred, and enlarged rapidly. The breast was removed Feb. 21, 1905.

M.N. 3515.

MAMMA: Fibroma. 69 : 63 · 2

The specimen shows an enormous fibroma replacing the mamma. The tumour has burst through the skin and formed a large fungating mass with a central excavation. On the surface of the section, posteriorly, the tissue is seen to be uniformly fibrous, with dilated blood-vessels or lymphatics appearing as cystic spaces throughout.

M.N. 3763. D.B. 4877. March 14, 1906. Mr. Platt.

MAMMA: Fibro-Adenoma. 69 : 64 · 7

The portion of skin removed with the tumour includes the nipple, which is not bound down nor retracted. The tumour formed a very large, rounded, well-defined mass. An incision through the middle of it shows the characteristic structure of the fibro-adenoma. The matrix is essentially fibrous, but shows a tendency to become clear myxomatous tissue over irregular areas. At these points the central masses of epithelial structure stand out as somewhat opaque nodules.

Microscopically the tissue has the typical fibro-adenomatous structure.

MAMMA: MALIGNANT TUMOURS.

M.N. 1726. D.B. 119.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The nipple is both swollen and retracted, and close to it there is an irregular area of ulceration, where the surface tissue is much fissured and broken up. There is a compact nodule under the nipple.

Microscopic section shows the presence of atrophic scirrhus.

M.N. 1734. Mr. Wright.

MAMMA: Glandular Carcinoma. 69 : 66 · 3

On the surface of the breast a rounded fungating mass has grown, intimately associated with the skin, and showing expansion outwards.

The microscopic section shows the presence of a very cellular cancer. The layer of skin epithelium is continuous over the surface except at points where it has been destroyed by ulceration. The tissue of the tumour consists of large masses of epithelial growth, with a matrix of cellular, and, in areas, of myxomatous fibrous tissue, well supplied with blood-vessels. The origin of the cancer is not perfectly clear.

M.N. 1737. Feb. 10, 1885.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is the half of a breast of small size. Immediately under the nipple, which is very much retracted, there is a wedge-shaped area of hard contracting tissue. The growth is small, fairly well defined, and displays ramifying processes from its edges into the surrounding fat. The substance of the growth is dotted over with yellow pin-point masses of fatty and necrosed epithelium.

M.N. 1739. Sept., 1883. Mr. Southam.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a small portion of the breast. The nipple is somewhat retracted, and a little to the side, in the substance of the gland, beneath the nipple, there is an oval nodule of dense growth, the size of a large bean, of well-defined outline, with ramifying processes invading the surrounding fat. The cut surface of the growth presents a stippled appearance. The growth is distinctly separated from the skin even at the nipple.

M.N. 1741. Oct. 10, 1884. Prof. Young.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3
43 · 2 : 66 · 3

The specimen is the mamma with the axillary lymphatic glands attached. The area of the nipple is depressed, but the nipple itself does not show marked retraction. On the cut surface there is seen under the nipple a triangular-shaped mass of cancerous growth, which has a much more opaque appearance than the surrounding tissue. It is spreading at its margin, and further evidence of its malignancy may be found in the enlarged lymphatic glands from the axilla.

The patient was alive twenty years after the operation.

M.N. 1743. Mr. Whitehead.

MAMMA: Medullary Carcinoma. 69 : 66 · 3

The specimen shows one half of the breast, the seat of an early medullary carcinoma. The tumour tissue presents the variegated pale and yellow mottling characteristic of an epithelial tumour.

Microscopically the tissue shows, in a fibrous matrix, large islands of epithelial cells, somewhat loosely arranged.

M.N. 1745. Mr. Southam.

MALE MAMMA: Scirrhus Carcinoma 69 : 66 · 3

The mammary gland has been bisected in the middle. The form of the nipple has been obscured by the presence of a rounded, somewhat irregular tumour growth, which has caused distension and atrophy of the skin over the greater part of its surface. On section it is seen that the tumour is a well-defined mass intimately adherent to the skin, and passing down to the pectoral muscle to which it is attached. The fine texture of the cut surface reveals the presence of a delicate reticulum, in the meshes of which are seen translucent areas.

Microscopic section shows that the tumour is a scirrhus carcinoma with the appearance of moderately rapid growth, there being an excessive quantity of epithelial formation in relation to the matrix.

M.N. 1746.

MALE MAMMA: Squamous Epithelioma. 69 : 66 · 1

The specimen shows the breast, the peripheral part of which is at one point the seat of a cellular tumour with a softened centre. The tumour has no apparent connection with the nipple, but over the most prominent part of the tumour the skin is thickened.

On microscopic examination the tumour was found to be a squamous epithelioma.

The patient was a male.

M.N. 1750.

MAMMA: Round-Celled Sarcoma. 69 : 65 · 1

The specimen is a portion of a tumour of the breast, of a rounded, somewhat flattened shape, while the finer structure seen on the cut surface is that of a multitude of cellular areas situated in a branching meshwork of fibrous tissue.

Microscopic section demonstrates that the cellular masses are composed of closely-packed round cells with well-defined nuclei and very little protoplasm, and in a state of active proliferation. The matrix consists of fibrous tissue, but shows a most extensive infiltration of round cells.

M.N. 1752. D.B. 348. Sept. 16, 1883. Mr. Jones.

MAMMA: Round-celled Sarcoma. 69 : 65 · 1

The nipple is somewhat retracted, and flattened a little, and close to it the skin has been expanded and ruptured, and the tumour growth can be seen bulging out at the site of the rupture (sarcoma fungoides). The surface of the section shows that the tumour forms a large ovoid mass of tissue occupying the breast, and that it is of a uniform friable structure, with one or two areas of softening.

On microscopic section it is a round-celled sarcoma.

M.N. 1753.

MAMMA: Carcinoma. 69 : 66 · 3
69 : 45 · 2

The specimen shows the breast occupied by a rounded discoid mass of tumour. It is well defined and the tissue has a uniform cellular appearance. On the surface there is an irregular ulcer with raised everted edges, which are, however, not much thickened. The floor is irregularly excavated and presents marked staining from hæmorrhage. The nipple is somewhat retracted.

Microscopic examination shows in certain areas typieal scirrhus structure, but in the greater part of the section the tumour structure is obscured by an infiltration of cells, due to inflammatory reaction.

M.N. 1768. D.B. 300. May 5, 1886. Mr. Southam.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3
69 : 45 · 3

The nipple is not retracted and a large flat ulcer with very slightly raised edges has formed on the skin. Its base is composed of tumour tissue, and of the deeper layers of the skin. On the cut surface the tumour is seen forming a mass occupying the whole of the gland, and adherent to the pectoral muscle. In the nipple a small cyst has formed. The tumour presents a pale grey matrix in whose meshes are small masses of opaque yellowish epithelial growth, some of whieh are undergoing necrosis and are breaking down. The tumour is fairly well defined, but at the edges are seen a few strands ramifying in the fat.

M.N. 1771.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a portion of a breast which is much enlarged by the presence of a tumour. The nipple is retracted and under it a fairly well-defined tumour is to be seen, showing, however, a tendency to burst through its capsule. The cut surface shows that the tumour in its finer structure consists of a fibrous matrix, throughout which are somewhat more opaque areas of epithelial growth.

On microscopic section the structure of a rapidly-growing scirrhus carcinoma is observed.

M.N. 1772. Prof. YOUNG.

MAMMA; Scirrhus Carcinoma. 69 : 66 · 3

The specimen consists of half of a mammary gland, which is the site of a scirrhus carcinoma. The tumour occupies apparently the whole of the gland and is directly continuous with the nipple, and around its margin it may be seen sending processes into the surrounding fat. The cut surface has the variegated pale yellow appearance characteristic of scirrhus tumour.

Microscopic section shows a very fibrous matrix in whose spaces are small groups of compressed glandular cells.

M.N. 1774.

MAMMA: Carcinoma. 69 : 66 · 3

The specimen consists of the mammary gland, and a portion of the pectoral muscle attached to its base. The gland is the site of a tumour which has extended towards the surface, at one point especially giving rise to a fungating mass, which has ulcerated. The centre of the ulcerated area is considerably excavated, and the floor of the ulcer is covered by a layer of fibrinous exudate. The cut surface of the tumour shows that the growth has formed rounded fleshy-looking masses distributed through a matrix of connective tissue. The nipple is not retracted.

Microscopic section shows alveolar areas of large epithelial cells distributed through the matrix of connective tissue, in which there is a considerable amount of round-celled exudation. The epithelial cells of the carcinoma present an unusual number of mitotic figures.

M.N. 2977. D.B. 4370. Feb. 17, 1905. Mr. Wright.

MAMMA: Carcinoma. 69 : 66 · 3

The specimen consists of a breast, which was the site of a rapidly-growing carcinoma. The breast is uniformly enlarged, and the nipple and areola show the pigmentation of pregnancy. The body of the gland is occupied by a solid cancerous growth of a discoid form extending upwards towards the nipple and downwards into the pectoral muscle, and also sending distinct processes out towards the axillary glands. The cut surface of the tumour presents the characteristic semi-translucency of the epithelial growth with minute yellow areas scattered throughout the tissue.

Microscopically the tumour is of the adenomatous type, consisting of rounded masses of gland-like structure, with a comparatively small amount of fibrous tissue matrix.

The patient was a woman, aged 32 years. The tumour in her breast had been growing for five months, and at the same time she noticed the enlargement of the axillary glands. Lactation had ceased five months before the appearance of the tumour. She had lost flesh very considerably. On Feb. 16, 1905, the breast and axillary glands were removed. The glands were adherent to the axillary vein, a portion of which, six inches long, was removed at the operation.

M.N. 2979. Dec. 17, 1904. Mr. Collier.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a portion of the mamma affected by a tumour. The tumour occupies its substance and forms a large fungating mass at the site of the nipple. The outer surface of this mass is covered by skin and has a coarsely granular appearance. On the cut surface it is seen to have the structure of an exceedingly fine meshwork of fibrous tissue enclosing minute masses of epithelium. On the under surface portions of the pectoral muscle are seen to be attached to the growth. A thin section of the breast has been added to show a secondary deposit in the immediate neighbourhood of the tumour.

The patient was a female, aged 48 years. She had noticed the tumour in the breast for eighteen months. The pectoral muscle was involved and also the axillary glands. The breast was amputated Dec. 17, 1904.

M.N. 2994. Feb. 21, 1905. Mr. Wright.

MAMMA: Carcinoma. 69 : 66 · 3

The specimen presents a large rounded tumour, the skin over which shows atrophy and superficial ulceration. On the cut surface the tumour is in close union with the skin. It has no capsule and there is marked tendency to infiltrate the neighbouring tissue. Secondary growth in an axillary lymph gland is seen. The structure of the primary growth and of that in the gland shows the typical semi-translucent appearance of carcinomatous tissue, with the surface dotted over with pin-point areas of degenerating epithelium. In the centre of the tumour there are two or three small areas of softening, and there is retraction.

The patient was a woman, aged 59. The tumour had been growing for two years, and for the previous six months there had been ulceration of the skin with considerable bleeding. The breast and glands were removed Feb. 21, 1905.

M.N. 3009. Nov. 15, 1901. Mr. Wright.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is one half of the mammary gland. The nipple is very markedly retracted. Situated underneath, and extending as far as the pectoral muscle, and also extending laterally by a broad process which reaches the skin, there is a scirrhus carcinoma with a typical fibro-epithelial appearance. The skin is adherent to the tumour, and the pectoralis muscle is slightly involved.

The patient was a female, aged 57 years. There was a four months' history of growth. The axillary glands were involved, and were removed with the breast, Nov. 15, 1901.

M.N. 3049. Jan. 2, 1902. Mr. Wright.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a portion of a breast with the pectoral muscle at its base. Immediately under the nipple there is an irregularly rounded mass of dense, opaque, slightly branching growth. The nipple is somewhat retracted. In the piece of pectoral muscle adherent to the mass there is a yellowish nodule of secondary tumour growth.

The patient was a female, aged 49 years. There was a history of two months' growth, accompanied by shooting pain in the breast. The breast was removed Jan. 2, 1902.

M.N. 3084. July 7, 1902. Mr. Wright.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a thick section taken from the breast, but not including the nipple. In the subcutaneous fat there is an area of tumour growth of an irregularly rounded shape, of an opaque yellow colour, and showing branching processes passing into the surrounding tissue, giving the typical appearance of a cancer nodule.

The patient was a woman, aged 68 years.

M.N. 3101. April 17, 1903. Mr. Wright.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

At the lower border of the prominence of the mamma there is a retraction of the skin, and on the cut surface it is seen that immediately under this retraction there is a tumour mass of considerable size. The tumour is situated in the fat, and is composed of dense, somewhat opaque yellowish tissue. At its margin irregular radiating strands are seen passing out into the surrounding tissue. It has apparently also involved the pectoral muscle.

The patient was a woman, aged 35 years. The growth was of two months' duration. The axillary glands were not involved.

M.N. 3106. Oct. 29, 1902. Mr. Wright.
MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a portion of the breast including a small segment of the nipple and a portion of the pectoralis muscle. The nipple is very much retracted and is situated at the bottom of a depression. Immediately under the nipple and passing down until it involves the pectoral muscle, there is a typical yellow, opaque scirrhus growth. The processes reach the under surface of the skin, and at a point $1\frac{1}{2}$ in. from the nipple they become intimately adherent to it, and have caused another retraction. The skin is markedly thickened. Other processes of the growth are seen ramifying in the fat. The central part of the tumour shows the typical dotted apearance of a scirrhus carcinoma.

The patient was a woman, aged 40 years, who had a painful tumour in the breast for twelve months. The nipple was retracted and the skin became adherent to the growth, which also involved the pectoral muscle. The axillary glands were enlarged.

M.N. 3108. D.B. 3906. June 24, 1901. Mr. Wright.
MAMMA: Carcinoma (Cystic). 69 : 66 · 3

The specimen is a part of the breast including the nipple. It is the seat of a carcinoma, in the centre of which several cysts have developed. The larger cysts are smooth-walled, but close to the skin is one about the size of a marble the contents of which have become a solid inspissated mass. The tumour growth shows the typical branching formation of cancer, and one or two of the branches extend up the ducts towards the nipple, which is retracted.

M.N. 3142. June 25, 1902. Mr. Wright.
MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen consists of one half of the mammary gland. The nipple is somewhat flattened, and immediately beneath it there is situated a rounded tumour about the size of a walnut. It is well defined in outline. The central part of it shows glistening white fibres and the minute nodules of degenerating alveoli; the peripheral part is less fibrous and degeneration is absent there.

The patient was a woman, aged 72 years. The tumour had been growing for six months. The breast was amputated with the axillary contents.

M.N. 3149. Mr. Southam.

MAMMA; Carcinoma of the Ducts. 69 ; 66 · 3 (67)

The specimen shows the central portion of the breast. The nipple is considerably contracted, and at one side an incision has been made to expose the cavity of a cyst which has formed in the substance of the breast. On the walls of the cyst can be seen irregular papillary growths. On the cut surface at the base of the tumour an irregular branching area of opaque yellow growth is seen, and a defined round nodule close to the wall of the cyst, which has been cut through at its lowest point.

The patient was a woman, aged 72 years. There was a year's history of growth, and there had been a blood-stained discharge from the nipple for eight months.

M.N. 3166. Sept. 17, 1904. Mr. Collier.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

In the specimen there is a moderately large swelling in the area of the nipple. The skin over the surface shows an erythematous blush, and the nipple is situated about the centre of an area of ulceration the size of half-a-crown. The edge of this area is distinctly raised above the surrounding surface, and near it there is a considerable amount of hæmorrhage. The floor is rough and slightly excavated. Under this ulcer there is a dense nodule of scirrhus growth intimately united with the skin on one side, and with the pectoral muscle on the other. The growth extends along the submammary tissues as a series of nodules, the farthest of which occupy the axillary lymph glands. In the primary tumour the cut surface shows the characteristic tissue of scirrhus growth—a semi-translucent texture dotted over with pin-point areas of degenerating epithelium. More recent growth seen in the lymphatic gland has a uniform opaque cellular appearance.

Microscopically the tumour showed large elongated areas of epithelial growth separated from each other by extremely fine strands of fibrous tissue.

The patient was a woman, aged 61 years, who had suffered from a discharge from the nipple for ten months. The tumour had been noticed for three months. The breast and glands were removed Sept. 17, 1904.

M.N. 3169. Feb. 9, 1904. Mr. Southam.

MAMMA: Carcinoma. 69 : 66 · 3

This specimen shows two thick sections from a mammary carcinoma. About the centre of the section is an oblong mass of tumour growth of irregularly lobulated contour, infiltrating the fat and showing a tendency to necrosis and softening, with the formation of several small cysts. With one of the sections are two axillary lymphatic glands, which are also infiltrated with growth. The tumour is intimately adherent to the skin, and ulceration has taken place at the site of the nipple.

The patient was a woman, aged 48 years, who had had pain in the breast for three years. Eighteen months previously the nipple became retracted, and nine months later she first noticed a tumour in the breast.

M.N. 3175.

MAMMA; Scirrhus Carcinoma. 69 : 66 · 3

The specimen is a thick section of the breast taken through the nipple. Situated beneath the nipple is a small rounded mass of scirrhus carcinoma, the size of a cherry. The cut surface has the typical mottled appearance of cancerous growth. The nipple is retracted, and the surrounding tissues are puckered.

M.N. 3190. Feb. 16, 1905. Mr. Wright.

MAMMA; Carcinoma. 69 : 66 · 3

The specimen consists in one half of a breast. The cut surface shows that the gland has been replaced by a large discoid mass of cancer tissue. One or two areas of softening are seen, but there is very little degeneration, and the surface has the typical marbled semi-translucent appearance of a rapidly-growing carcinoma. At the lower end of the specimen is seen a large metastatic deposit occupying an axillary lymph gland.

The patient was a woman, aged 32 years. A mass had been noticed in the right breast for five months. The axillary lymphatic glands were enlarged at the same time and there was considerable emaciation. The breast was much enlarged and the skin was thickened and adherent to the mass of growth, which involved also the pectoral muscle.

M.N. 3211. D.B. 4418. June 6, 1905. Mr. Wright.

MAMMA; Scirrhus Carcinoma. 69 : 66 · 3

The specimen consists of a thick section of the breast made through the nipple. The surface of the section shows that the whole of the breast tissue has been replaced by a carcinomatous growth. The growth extends to the nipple, which is deeply retracted, and on the under surface to the muscle along which it has extended laterally.

The patient was a married woman, aged 35 years, who had noticed a small growth in the left breast for five months. There was a purulent discharge from the nipple. The growth commenced during lactation. The axillary glands were involved.

M.N. 3219. D.B. 4440. May 15, 1905.

MAMMA: Carcinoma. 69 : 66 · 3 (: 33)

The specimen consists of one half of a breast with the overlying skin. The nipple is considerably retracted. A large irregularly discoid mass of growth occupies the site of the gland rising to a prominence at the nipple. Immediately to the inner side of this prominence there is a cyst-like cavity containing blood-clot. The carcinomatous mass sends off irregular processes into the surrounding tissue, and the extension of the tumour to the axillary lymphatic glands is well seen. The skin over the surface is thick, but is not otherwise involved in the growth.

Microscopically the tumour shows solid processes of carcinomatous cells, with a good deal of tissue reaction around them.

M.N. 3220. Feb., 1905. Mr. Wright.

MAMMA: Carcinoma. 69 : 66 · 3

The specimen consists of a section taken horizontally from the breast, and including the skin and nipple. The nipple is retracted and the growth has caused a marked prominence of the skin over a rounded area about two inches in diameter. The skin over the centre of the area is ulcerated, and at the margin of the ulceration it is discoloured. At the back of the specimen

a section of the growth is seen as it sends radiating processes into the surrounding fat; it presents the appearance of a scirrhus carcinoma dotted with yellow foci of fatty degeneration.

The patient was a woman, aged 57 years. There had been a small nodule in the breast for twelve years, but during the last three months there had been ulceration of the skin and rapid growth. The breast and glands were removed Feb., 1905.

M.N. 3222. D.B. 4420. June 1, 1904. Mr. Wright.

MAMMA: Carcinoma. 69 : 66 · 3

The specimen consists in a carcinoma which has formed in the upper portion of the gland. The tumour tissue is not clearly marked off at its margin from the remaining gland. The nodule of tumour shows the pale pink appearance of a moderately soft carcinoma with areas of fatty degeneration in its centre. An axillary gland is also seen infiltrated with carcinoma.

Microscopically the tumour shows typical carcinomatous nodules.

The patient was a woman, aged 51 years, who had received a severe blow on the breast ten months previously. Six weeks after the injury, when all signs of the bruise had disappeared, a small hard nodule was noticed and this had steadily grown up to the time of operation. The growth was situated in the upper and outer quadrant of the left breast, and was adherent to the skin, which was somewhat discoloured. The breast was removed, with the contents of the axilla, June 1, 1904.

M.N. 3411. D.B. 3650. Jan. 22, 1898. Mr. Wright.

MAMMA: Colloid Carcinoma. 69 ; 66 · 3 (42 · 7)

The specimen consists in one half of a breast. In the upper and outer quadrant there is situated a soft, round, gelatinous mass of cancerous growth, about the size of a golf ball.

Microscopic examination shows an adenomatous cancer which in places has undergone colloid degeneration.

M.N. 3448. Mr. Thorburn.

MAMMA: Carcinoma. 69 : 66 · 3

The tumour has caused a large rounded outgrowth, on the outer surface of which the nipple is situated. At one portion of the tumour the skin is smooth and white, and superficial ulceration has commenced. The cut surface shows round the circumference a zone of growing tissue of a uniform texture, slightly lobulated in outline. Inside this there is a zone of tissue undergoing degeneration, and showing small cysts, while the centre of the tumour is occupied by a fairly large cystic space. In the degenerated area numbers of small hæmorrhages have occurred.

Microscopically the tumour is a rapidly-growing glandular carcinoma.

M.N. 3456.

MAMMA: Carcinoma. 69 : 66 · 3
43 · 2 : 66 · 3

The specimen consists of a tumour of the mamma with muscular tissue attached to the base, and a chain of enlarged lymphatic glands from the axilla. The area of the nipple is occupied by a shallow ulcer with a fairly smooth base and swollen rounded edges.

M.N. 3537. Mr. Wright.

MAMMA: Carcinoma, with Abscess. 69 : 66 · 3 (54 · 5)

The nipple is slightly retracted and the skin of the areola is pigmented. To the side of the nipple, but to a certain extent connected with it, there is a tumour growth about the size of a tangerine orange, in the centre of which is a rough-walled abscess cavity. Adjacent to this, and on its outer side, there is a soft, solid nodule, somewhat smaller. The tissue of both tumours has a uniform opaque cellular appearance.

Microscopic examination shows that the tumour is a medullary carcinoma with very little matrix. The cells of the tumour exhibit extensive fatty degeneration and here and there are islands of round-celled infiltration, which accompanied the abscess formation.

The patient was a woman, aged 64 years. There was a history of rapid growth of ten weeks' duration. The breast and glands were removed Oct. 17, 1904.

M.N. 3628. D.B. 2980. Jan. 7, 1895.

MAMMA: Scirrhus Carcinoma. 69 : 66 · 3

The specimen consists in a breast with a chain of axillary glands. The nipple is somewhat enlarged. The glandular tissue of the breast is replaced by a discoid mass of cancer, which has the irregular outline, the dense structure, and the mottled appearance characteristic of carcinoma. Immediately under the nipple an irregular cyst has developed. The lymph glands are enlarged and replaced by cancerous tissue.

Microscopic examination shows the tumour to be a scirrhus carcinoma.

M.N. 3645. Mr. Wright.

MAMMA: Encephaloid Carcinoma. 69 : 66 · 3

The specimen consists in a large rounded tumour of the mammary gland. The skin over the more prominent part is somewhat atrophied. On section the tumour is found to be very closely united with the skin, and to extend downwards until it reaches the layer of the pectoral muscle. The tumour is slightly lobulated in its arrangement, and has a uniform texture, showing areas of necrosis and a few small cysts.

On microscopic examination its structure is seen to be that of an encephaloid carcinoma, cylindromatous in type, with its cells in a state of active division. Lying among the strands of growing tissue are necrosed masses also derived apparently from the cancerous growth.

The patient was a woman, aged 42 years. The growth had been noticed only six weeks. The breast was removed Jan, 9, 1903.

M.N. 3775. D.B. 4774. Dec. 12, 1905. Mr. Wright.

MAMMA: Carcinoma. 69 : 66 · 3
69 : 64 · 7

The glandular tissue of the mamma has been replaced by a large rounded tumour, which on the cut surface has a pale white appearance characteristic of fibro-adenoma. The nipple is not retracted. In the midst of the tissue a few islands of fatty tissue may be seen with characteristic yellow colour and

also a few pale nodules of tumour formation which differ in structure from the main mass of the tumour. These nodules show no fibrous stroma and the cut surface has a uniform, opaque appearance, suggestive of rapid growth. A series of these nodules is found extending from the margin of the breast along the chain of axillary lymphatic glands.

Microscopic examination shows that the main mass of the tumour is a fibro-adenoma composed chiefly of a somewhat myxomatous fibrous tissue, but the dense nodules are carcinomatous. In some areas the carcinoma has an alveolar arrangement, the cells being of the columnar type. In others they are more cubical, occurring in solid masses. The stroma is not plentiful, and frequently direct invasion of the blood-vessels may be observed.

The patient was a woman, aged 24 years. There was a three months' history of tumour growth, and at the time of the operation multiple hard nodules could be felt in the large, somewhat soft mass which occupied the breast.

MAMMA: CYSTS.

M.N. 1759. D.B. 2773.

BREAST: Simple Cyst. 69:67.1

The specimen shows the breast of an elderly woman. On the deep aspect is seen a simple cyst with smooth walls—probably a retention cyst.

M.N. 3056. Mr. Wright.

MAMMA; Simple Cyst. 69:67·1

The specimen consists of a serous cyst of the breast. At the back of the specimen a small portion of the glandular tissue of the mamma is seen, and projecting from this is a cyst with thin walls and smooth inner surface.

M.N. 3090. Dec. 21, 1903. Mr. Platt.

MAMMA: Cystic Duct Papilloma. 69:67 (64·6)

The specimen consists of two thick vertical sections through the nipple. The sections show on the surface several cysts. They contain intra-cystic papillomatous growths, discoloured by hæmorrhages. The largest cyst is multilocular, and is continuous with a dilated duct which is seen to open at the nipple.

Microscopic examination showed that the tumour was a duct papilloma.

The patient was a woman, aged 44 years. For nine years a small tumour had been noticed in the left breast just beneath the nipple, but had given rise to no symptoms until four months previously, when the tumour began to grow more quickly and a blood-stained discharge from the nipple commenced. The breast was amputated Dec. 21, 1903.

M.N. 3095. Dec. 16, 1903. Mr. Wright.

MAMMA: Cystic Duct Papilloma. 69 : 67 (64 · 6)

The breast is almost completely converted into a smooth-walled cyst. Superficial to the main cyst are others smaller in size and almost completely filled with intra-cystic growth. The nipple is not retracted.

Microscopic examination showed a duct papilloma.

The patient was an unmarried woman, aged 43 years. A small lump had been noticed in the left breast for fourteen years, and there was a blood-stained discharge from the nipple. The discharge ceased a year before operation, and since then the swelling had enormously increased. The operation was on Dec. 16, 1903. Recovery was uneventful.

M.N. 3136. April 16, 1903. Mr. Wright.

MAMMA: Cystic Duct Papilloma. 69 ; 67 · 1 (64 · 6)

Immediately under the nipple and just beneath the skin is a rounded cyst. The wall is in a great part smooth. At one side there is a ragged, irregular, necrotic-looking papillomatous growth, and in the floor of the cyst there is a partially separated layer of blood clot. The skin over the surface is discoloured at one point by extravasation of blood.

The patient was an unmarried woman, aged 43 years. There had been a small nodule beneath the left nipple associated with a blood-stained discharge from the nipple for fourteen years. The discharge had ceased one year previously, and the swelling had steadily increased since then. The breast was amputated April 16, 1903.

M.N. 3159.

MAMMA: Cyst. 69 : 67 · 1

The specimen shows a simple cyst, the wall of which is composed of a thin translucent membrane.

The patient was a woman, aged 38 years, who had noticed the tumour for two months. There had been occasional shooting pains in the breast. The cyst contained clear serous fluid.

M.N. 3765. D.B. 4792. Jan. 8, 1906. Mr. J. W. Smith.

MAMMA Cyst with Papilloma. 69 : 67 (64 · 6)

The specimen consists of a portion of a breast with the overlying skin. On the surface of section can be seen a large cyst, the lining of which is for the most part smooth but discoloured in places by hæmorrhage. In the lower part of the cyst a mass of papillomatous growth of a friable consistence has grown into the cyst.

Microscopically the cyst is lined by a layer of flattened epithelial cells, and the connective tissue under this layer is very vascular. The papilloma consists of a multitude of processes covered by columnar epithelium.

NERVOUS SYSTEM.

DURA MATER: CIRCULATORY DISTURBANCES.

M.N. 735.

CALVARIUM: Hæmorrhage. 71 : 33
91 : 21

On the inner capsule of the sclerosed frontal bone is a layer of blood clot which formed as a result of hæmorrhage after fracture.

M.N. 992 A & B. D.B. 2294. P.M.S. 1892, No. 92. Mr. WHITEHEAD.

DURA MATER: Sub-dural Hæmorrhage. 71 : 33 · 1

The specimen shows the dura mater with a discoid mass of blood clot attached to its inner surface. The corresponding surface of the cerebrum shows depression and flattening of the convolutions. The cause of the hæmorrhage was a fracture of the skull due to a fall down stairs while the patient was intoxicated.

M.N. 995. D.B. 1423.

DURA MATER: Hæmorrhage. 71 : 33

On the interior surface of the dura, there is a large,oval-shaped mass of blood clot. The dark colour is due to post-mortem alterations of the blood pigment. The clot is partially covered with a thin membranous layer, and here and there are grey-coloured deposits, probably of calcareous salts. The hæmorrhage resulted from fracture of the skull.

M.N. 996. D.B. 139. Oct. 27, 1885.

DURA MATER: Meningeal Hæmorrhage, Hæmatoma. 71 : 33

The specimen shows a large extra-dural hæmorrhage. The blood clot is about 4 in. by 3 in. in size, and shows a somewhat uneven surface, areas of which are brownish-black in colour. The internal surface of the dura shows a more recent clot at one point.

M.N. 2799. D.B. 3621. Dec. 10, 1897. Dr. Leech.

DURA MATER: Sub-dural Hæmorrhage. 71 : 33

On the inner surface of one half of the dura a large mass of blood clot is present. It has a dark colour, from post-mortem alterations of the blood pigment. The surface of the clot is covered by a thin membranous layer. About $8\frac{1}{2}$ ozs. of blood were present in the subdural space, and there were also multiple hæmorrhages in the cortex, 3rd ventricle, and basal ganglia. The pia-arachnoid was congested. The blood-vessels did not exhibit any distinct atheromatous changes.

The patient was a male, aged 59.

DURA MATER: RETROGRESSIVE DISORDERS.

M.N. 1020. D.B. 1225. March 24, 1891. Dr. Dreschfeld.

DURA MATER: Sub-dural Osseous Plate. 71 : 42 · 9

The specimen is an irregular plate of bone, measuring about three quarters by half an inch, and situated just over the superior longitudinal sinus.

It was obtained from a patient (female), aged 38, in whom there was a condition of lympho-sarcomatosis. There were no pressure symptoms during life, and at the post-mortem the brain showed nothing more than slight congestion.

M.N. 1021. D.B. 1228. April 2, 1891. Dr. Graham Steell.

DURA MATER: Osseous Plate. 71 : 42 · 9

In the neighbourhood of the superior longitudinal sinus the dura mater shows an osseous plate.

M.N. 1022. D.B. 1357. Dr. Leech.

FALX CEREBRI: Calcification. 71 : 42 · 9

The falx is very much thickened, of somewhat bony appearance.

M.N. 1069. D.B. 1215. Dr. Graham Steell.

DURA MATER (Spinal Cord): Osseous Plate. 71 : 42 · 9

The dura has been opened to show a bony plate about $1\frac{1}{2}$ in. long and $\frac{3}{4}$ in. broad.

From a case of croupous pneumonia. (See lung M.N. 1547—25 : 54·2.)

DURA MATER: BENIGN TUMOURS.

M.N. 1028. Mr. Windsor.

DURA MATER: Psammoma. 71 : 64 · 8

The specimen consists in a small portion of the dura mater, to the inner aspect of which is attached a somewhat flat, rounded tumour. On the cut surface it is seen to have a soft fibrous structure, and on microscopical examination it showed the typical characters of a psammoma.

M.N. 3751. D.B. 4884. May 3, 1905. Dr. Orr.

BRAIN: Tumour of Dura Mater 71 : 63
73 · 1 : 41

On the inner aspect of the dura mater, at the anterior end of the right frontal lobe, is a small mass of firm new growth, which, by compression, has led to a somewhat deep depression in the cortex of that lobe.

DURA MATER: MALIGNANT TUMOURS.

M.N. 3554. D.B. 2767.

DURA MATER: Lymphosarcoma. 71:65·9

The specimen consists of a small portion of dura mater. On the inner surface, and close to the superior longitudinal sinus, is a tumour the size of a walnut. It has a soft cellular structure, and microscopical examination shows it to be a lympho-sarcoma.

PIA-ARACHNOID MATER: CIRCULATORY DISTURBANCES.

M.N. 3035. Feb. 24, 1904. Mr. Collier.

MENINGES: Blood Clot. 72 : 33

The flake-like meningeal blood clot has become partly organised, and exhibits in its substance a considerable residue of blood pigment.

The patient was a man, aged 46 years. Sixteen months ago he had received a head injury. He remained in bed six weeks; he subsequently suffered from weakness of the left arm. On admission to the Infirmary, Feb. 22, 1904, he was suffering from paresis and twitchings of the left arm. At that time there was marked aphasia. Headache was persistent and intense. Trephining was performed on the right side. The dura was opened and the clot was removed from the surface of the brain. The clot removed measured 3 in. by 3 in. Death occurred on the following day from shock.

PIA-ARACHNOID MATER: INFLAMMATION.

M.N. 2731. D.B. 3911. July 8, 1902. Mr. Thorburn.

CEREBRUM: Suppurative Lepto-Meningitis. 72 : 54

The meninges are thickened and in some places show slight roughening. The vessels are dilated and the sulci are almost hidden by exudation.

Microscopically, the leptomeninges are thickened by the presence of an exudate in which are a large number of polymorphonuclear leucocytes.

The specimen was obtained from a child, aged 10 years, who gave a history of chronic discharge from the ear and was acutely ill for seven days. On admission to hospital there was left exophthalmos and some paresis of the right side. The skull was trephined and pus was found in the mastoid cells. The patient became very maniacal, and died within 24 hours.

M.N. 2748.

ARACHNOID: Chronic Inflammation. 72 : 55 · 1

The specimen is a portion of the cerebral arachnoid, which is thickened, whitish, and opaque from chronic inflammatory changes.

M.N. 3466. D.B. 4588. June 5, 1905. Dr. Ashby.

CEREBRUM; Suppurative Lepto-Meningitis. 72 : 54 · 4

There is considerable congestion of the meningeal vessels. The nerves, optic chiasma, and inter-peduncular space are all covered with a dense membrane-like structure, which formed the exudate.

The patient was a child, aged six months; there was a three weeks' history of coma, retraction of head, flexed wrists and thighs, and persistent vomiting.

M.N. 3564. D.B. 4704. P.M.S. 472. Oct. 13, 1905. Mr. Wright.

BRAIN: Suppurative Meningitis. 72 : 54 · 4

Over the entire brain the pia-arachnoid is the seat of diffuse purulent infiltration, most marked below the tentorium cerebelli. The pus was not foul. The meninges are the seat of very marked injection, especially over the base where are also a few small hæmorrhages. The pia is thickened from inflammatory exudation, especially in the region of the optic chiasma.

The patient was a male, aged 22. The condition followed a fracture of the skull, which had crossed the roof of the right tympanic cavity.

M.N. 3756. D.B. 4833. P.M.M. 804. Feb. 12, 1906. Dr. Harris.

BRAIN: Suppurative Lepto-Meningitis. 72 : 54 · 4

The entire convexity of the brain was bathed in a thick lemon-yellow coating of fibrino-purulent exudate. In the frontal region the purulent infiltration of the pia-arachnoid membrane is so copious that even the blood-vessels are obscured. In the parietal region, where the exudate is somewhat less plentiful, the exudate appears as an opaque yellow band on each side of the blood-vessels. Large numbers of pneumococci were found in the exudate.

The patient was a child, aged 4. At the autopsy were found broncho-pneumonia, fibrinous pericarditis and fibrinous pleurisy. (See lung M.N. 3757—25 : 52·1.)

PIA-ARACHNOID MATER: SPECIFIC INFLAMMATIONS.

M.N. 3347. D.B. 4628. P.M.S. 454. June 22, 1905. Mr. Platt.

BRAIN: Tuberculous Lepto-Meningitis. 72:56·2

The left hemisphere, with its membranes, has been preserved and shows the presence of tuberculous foci in the following situations—(1) the left Sylvian fissure, where there is an opaque thickening, about 1 inch wide, obscuring the ascending frontal and neighbouring convolutions; (2) the inner aspect of the frontal and parietal lobes; (3) the inferior aspect of the frontal lobe, where the membranes show a diffuse milky opacity; (4) the interpeduncular space. The right hemisphere and cerebellum showed similar, but less marked, changes. Over the cerebellum there was a slight amount of fibrinous exudation. Tubercle bacilli were found in the exudation.

The patient was a male, aged 38.

M.N. 3372. D.B. 4358. P.M.M. 699. March 16, 1905. Dr. Wilkinson.

BRAIN: Tuberculous Lepto-Meningitis. 72:56·2

The brain weighed 25 ozs.; it was of soft consistence. On the surface are seen a very large number of pale cream-coloured tubercles. They extend outwards along the whole distribution of the middle cerebral artery on the right side. They are most abundant in the Sylvian fissure, where in many cases they may be seen arranged in rows, and least abundant near the region of the superior longitudinal sinus. The tubercles are also found on the inner aspect of the right hemisphere corresponding to the distribution of the anterior cerebral artery. The left hemisphere also shows a few tubercles on its inner and outer aspects. The pia is slightly injected.

The patient was a female child, aged 12 months. Tuberculosis was also found in the lungs (see lung M.N. 3344—25:56·1), mesenteric glands, spleen, and liver.

M.N. 3478. D.B. 4343. March 6, 1905. Dr. Ashby.

CEREBRUM: Tuberculous Meningitis. 72 : 56 · 1

The brain weighed 44 ozs., and showed at the base a mass of gelatinous material, especially around the optic chiasma. The vessels are congested and the membranes are thickened. No tubercles could be seen with the naked eye.

The patient, a child of 8, was admitted comatose to the hospital. Rigidity, optic neuritis, and vomiting were the chief symptoms. The bronchial glands and lungs were tuberculous, and miliary tubercles were found in the spleen and kidney. The liver was fatty and the intestine was free from tuberculous lesions.

PIA-ARACHNOID MATER: MALIGNANT TUMOURS.

M.N. 3587. D.B. 4635. P.M.M. 726. July 3, 1905. Dr. Judson Bury.

BRAIN: Endothelioma of Pia-mater. 72:66·5

A large mass of extremely soft white growth united the under surface of the frontal lobes to the dura mater covering the ethmoid plate and adjacent parts of the orbital plate. The growth had to be torn from the dura, but it appears less closely united to the under surface of the frontal lobes, which have been distorted from pressure. The growth is in the middle line, and commences just in front of the optic nerves, which are not compressed. The under aspect of both frontal lobes shows signs of softening in the immediate neighbourhood of the growth. There is no hæmorrhage.

Microscopically, the tumour consists of round cells with somewhat large nuclei. The masses of cells have a somewhat plexiform arrangement, and also show a certain amount of concentric grouping. The cerebral tissue has apparently not been invaded by the growth.

BRAIN; CONGENITAL LESIONS.

M.N. 985. D.B. 1151. Oct. 15, 1890. Dr. Graham Steell.

CEREBELLUM: Congenital Atrophy. 73·2:12·2

The left lobe of the cerebellum is about half the size of the right. The right fossa of the skull was also of relatively small size and the right crus was distinctly smaller than the left. The cortex cerebri was not atrophied. The spinal cord was normal.

The specimen is taken from a man, aged 29 years, who died from pulmonary phthisis. He was a well-built, well-nourished man. Both apices were consolidated, and there was profuse hæmoptysis. No symptoms of cerebellar disturbance were present.

M.N. 3606. D.B. 3218.

BRAIN; Hemi-Atrophy. 73:12
73:41

The right cerebral hemisphere shows marked general atrophy, especially pronounced in the frontal lobe where the greater part of the nerve substance has disappeared, and there remains only the wrinkled, collapsed, and slightly thickened meninges.

BRAIN: CIRCULATORY DISTURBANCES.

M.N. 997. D.B. 2234. Dec. 4, 1893.

PONS VAROLII: Hæmorrhage. 73:3·33

The specimen shows a large hæmorrhage in the pons.

M.N. 3322. D.B. 4273. P.M.S. 409. Dec. 21, 1904. Mr. Collier.

CEREBELLUM AND PONS: Hæmorrhage. 73:3·33
KIDNEY: Cyst. 51:67·1

In the anterior part of the pons, $\frac{1}{4}$ inch below the Sylvian aqueduct, is a horseshoe-shaped hæmorrhage of recent origin, and also another hæmorrhage in the formatio reticularis. The right kidney is pale, but otherwise normal except for a number of small, clear, thin-walled cysts confined to the surface of the cortex. At the upper pole of the left kidney is a large unilocular thin-walled sessile cyst with clear watery contents.

The patient was a male, aged 62. At the autopsy a fractured skull was found, with hæmorrhage into the meninges and laceration of the cerebral cortex.

M.N. 3323. D.B. 4292. P.M.S. 414. Jan. 11, 1905. Mr. Wright.

CEREBRUM: Traumatic Hæmorrhage. 73·1:33

The brain weighed 45 ozs. It showed nothing abnormal except a fairly well-defined area of hæmorrhage in the cortex and subcortical tissue at the upper end of the right ascending frontal convolution. This area is of the size of a cherry and is mainly composed of minute brownish-red points, and is surrounded on its deeper aspect by a well-defined zone of pale yellow discolouration $\frac{3}{4}$ inch deep.

The patient, a male, aged 39, died of a fractured skull.

M.N. 3527. D.B. 4637. P.M.M. 728. July 4, 1905. Dr. Reynolds.

CEREBRUM: Dilatation of both Lateral Ventricles. 73·6:37 (27)

The specimen is a coronal section of the cerebrum made to show the marked dilatation of the two lateral ventricles.

The patient, a female, aged 47, died in a state of coma. She had a history of marked syphilis. The body showed extreme emaciation. There was a very large amount of serous fluid in the brain.

M.N. 3754. D.B. 4885. Dec. 16, 1905. Dr. Orr.

BRAIN: Hæmorrhage. 73·1:33·1

A large red clot may be seen occupying the cavity of the left lateral ventricle, and on the outer aspect of the hemisphere the motor-tract is seen to be infiltrated with blood throughout its entire extent.

BRAIN: RETROGRESSIVE DISORDERS.

M.N. 3358. D.B.4311. P.M.M. 686. Feb. 2, 1905. Dr. Reynolds.

BRAIN: Softening, Hæmorrhage. 73:44·3
73:33

The brain weighed 56 oz. Externally it showed nothing abnormal. Internally there was found an oval area of softening, the size of a hen's egg, which lay ½ inch below the grey matter of the cortex of the Island of Reil, and extended inwards as far as the left lateral ventricle in front; but behind it was separated from the 3rd ventricle by a strip of tissue, the remains of the left optic thalamus. The area of softening thus lies in the middle of the left hemisphere. The walls of the new cavity are very soft, pulpy, and of a cream colour. Into the middle of the softened tissue, which is of a dirty yellow colour, there has been a recent hæmorrhage leading to the formation of a red clot, the size of a walnut. It was impossible to detect any traces of the lenticular nucleus, internal capsule, and the greater part of the optic thalamus. In the lower specimen there is a second area of hæmorrhage situated in the centre of the optie thalamus.

The patient was a male, aged 53. At the autopsy there was found well-marked atheroma of the cerebral arteries. The patient was in hospital for five weeks suffering from right hemiplegia. Hypostatic pneumonia supervened four days before death.

M.N. 3698. D.B. 4785. P.M.M. 787. Dec. 21, 1905. Dr. Wilkinson.

BRAIN: Atrophy. 73·1:41

The pia mater has been stripped off from the left cerebral hemisphere, and it is seen that there is marked atrophy of the convolutions, especially at the upper part of the Rolandic area, and here the aseending parietal is the convolution most affeeted. Generally the sulci are wide and deep. Over the right cerebral hemisphere the pia is diffusely opaque and thickened, but only to a slight extent. This change is seen to have a very patchy distribution. There was much subpial œdema throughout.

The patient was a male, aged 42, who had had fits for ten years. He died from coma. There was much wasting and atrophy in the muscles of the back.

M.N. 3728. Dr. Lickley.

BRAIN: Softening of the Left Hemisphere. 73·1:44·3

Complete softening and disintegration of the left hemisphere has occurred, and in place of it there now remains the thickened membranes and some small irregular masses of brain substance. When the brain was removed from the skull the membranes were filled out with fluid. The dura was ossified over the area of softening.

The patient was a man, aged 35. He suffered from paralysis on the right side with atrophy of the muscles and bones and distortion and fixation of the limbs. The condition must have arisen in adult life and was most probably due to embolism or thrombosis of the middle cerebral artery. There was a ring of atheromatous ulceration at the commencement of the aorta, but the heart was otherwise normal. The right kidney was somewhat smaller than the left, but there was no evidence of Bright's disease. The lungs were tuberculous, but otherwise the viscera were normal.

The specimen was from a dissecting-room subject, and no complete history could be obtained. The tip of the frontal lobe and the anterior part of the temporo-sphenoidal lobe are less affected than the rest of the hemisphere.

M.N. 3750. D.B. 4883. July 14, 1904. Dr. Orr.

BRAIN: Softening of Broca's Convolution. 73·1:44·3

The surface of the brain shows a marked depression immediately above the commencement of the fissure of Sylvius. This resulted from softening in the posterior end of the left inferior frontal (Broca's) convolution. The pia is seen covering the depressed surface.

M.N. 3752. D.B. 4887. April 4, 1905. Dr. Orr.

BRAIN: Atrophy (General Paralysis of the Insane). 73·1:41

The convolutions of the anterior and upper two-thirds of the cerebral hemisphere show extreme atrophy and corresponding widening of the sulci, and over this area the pia-arachnoid mater is opaque.

The patient was a male, who suffered from advanced general paralysis of the insane.

M.N. 3753. D.B. 4882. Sept. 30, 1904. Dr. Orr.

BRAIN: Atrophy (General Paralysis of the Insane). 73.1:41

The convolutions of the frontal lobes are the seat of marked atrophy, and the intervening sulci are correspondingly widened.

BRAIN: INFLAMMATORY LESIONS.

M.N. 2864. D.B. 4189. P.M.M. 538. Jan. 25, 1904. Dr. Graham Steell.

CEREBELLUM: Abscess in the Left Lobe. 73·2:54·5

The white matter of the left lobe is almost entirely replaced by a spherical cavity, the size of a walnut, with smooth soft walls of a red colour; it contained liquid yellow pus. The deeper layers of the grey cortical matter have been encroached upon slightly in places, and very slight pressure served to express pus from a minute aperture near the outer margin of the lobe. The pus contained staphylococci. There was no meningitis. The lungs showed gangrenous and tuberculous cavities.

History:—Ten months before death the patient had his palmar arch divided, and lost much blood. Immediately afterwards he began to show head symptoms diagnosed as due to meningitis. This cleared up, but he had a relapse, though the symptoms were less marked. It is possible that the abscess in the cerebellum was primarily a solitary tubercle, which became infected with staphylococci before the death of the patient—similar to the process in the lungs. (See kidney M.N. 2877—51:54·5.)

M.N. 3662. D.B. 4703. P.M.S. 470. Oct. 12, 1905. Mr. Southam.

BRAIN: Abscess. 73·1:54·5

In the substance of the right temporo-sphenoidal lobe is an abscess cavity the size of a hen's egg with fairly smooth, dark grey walls. It has reached the surface on the inferior aspect, and extended almost to the tip of the lobe. It was filled with foul pus. The patient was a male, aged 28. The abscess followed chronic suppurative otitis media. At the autopsy the pia-arachnoid beneath the tentorium cerebelli was found infiltrated with foul pus.

M.N. 3755. D.B. 4827. P.M.S. 492. Feb. 8, 1906. Dr. Milligan.

CEREBELLUM: Abscess. 73·2:54·5

There is a small abscess cavity in the middle lobe of the cerebellum. It has fairly smooth, red, soft walls, and contained very foul pus.

The patient was a woman, aged 44. The abscess followed suppurative otitis media and mastoiditis. At the autopsy were found, also, diffuse suppurative leptomeningitis, and thrombosis of the right lateral sinus.

BRAIN: SPECIFIC INFLAMMATIONS.

M.N. 1011. D.B. 1506. Dr. Cooke.

BRAIN: Multiple Tubercles. 73·1:56·1

In the cerbral cortex are situated a number of well-defined irregularly-rounded large tuberculous nodules. These nodules are all confined to the grey matter.

The microscopic structure is that of typical caseous tuberculosis, with a large number of giant cells.

M.N. 1012. Feb., 1880. Dr. Dreschfeld.

CEREBRUM: Solitary Tubercle. 73:56·1

On the right side, midway between the horns of the lateral ventricle and opposite the island of Reil, is a rounded mass about the size of a large marble. It is encapsuled and by its texture and yellow colour can be easily distinguished from the surrounding nerve tissue.

M.N. 1016.

CEREBELLUM: Solitary Tubercle. 73·2:56·1

The cerebellum has been cut vertically, and shows a nodule which is darker in colour than the surrounding tissue, about the size of a split pea, round in shape and encapsuled. The centre of the mass appears to be looser and softer in texture. A second nodule, oval in shape, is situated in the central white matter of the cerebellum.

M.N. 1036. P.M.M. 1881, No. 196. Dec. 20, 1883. Dr. Morgan.

BRAIN: Solitary Tubercle. 73 : 56 · 1

A large tumour, the size of a walnut, is found at the base in the region of the circle of Willis. It appears to spring from the optic chiasma; both the chiasma and the optic nerve being completely involved in the mass. The right optic nerve and tract are seen stretched over the right aspect of the tumour. The left third nerve, immediately after its exit from the crus, was involved in the mass. The crus was compressed by the tumour. Internally the growth had projected into the 3rd ventricle, pressing on the left optic thalamus. On section it showed numerous points of caseation. The brain elsewhere was normal.

Microscopic examination showed the tumour to be tuberculous.

M.N. 2713. D.B. 3967. Jan. 17, 1902. Dr. Judson Bury.

CEREBRUM: Multiple Tubercles. 73 · 1 : 56 · 1

The upper section shows one large and several smaller nodules; the former occupies the thalamic area, and has encroached upon the lateral ventricle and the internal capsule and corpus striatum. The smaller nodules are scattered throughout the cortex. The posterior aspect shows a large nodule just external to the upper third of the internal capsule.

The lower section shows a smaller nodule situated in the same position as the larger nodule of the upper section. A second mass is situated in the left hemisphere external to the upper third of the internal capsule. The cut surface of the larger of these nodules shows multiple small areas of caseation.

From a girl, aged 11.

M.N. 2789. D.B. 4289. Feb. 3, 1905. Dr. Williamson.

CEREBRUM: Solitary Tubercle 73 · 1 : 56 · 1

The specimens are coronal sections of the posterior parietal portions of the cerebral hemisphere. The upper smaller specimen contains a rounded tumour-like mass, about $\frac{1}{2}$ inch in diameter, situated in the subcortical white matter. It is surrounded by a definite capsule. The central portion is

caseous and some of the contents have disappeared; around the caseous portion is a zone of firm tissue separated from the caseous focus by a light-coloured line which in turn is surrounded by a slight deposit of pigment. The lower section shows another tumour presenting similar appearances. The tumour is, however, more distinctly encapsuled. The surrounding tissues appear to be softened.

Microscopically the centre of the tumours consist of caseous material, surrounded by a zone of cellular tissue containing a few scattered giant cells, and an outer zone of thick fibro-cellular tissue. No endarteritis was present in the smaller blood-vessels. Large numbers of tubercle bacilli were found in sections of the tumours.

The patient was a man, aged 34. He had severe headaches for about twelve months, following on epileptic (?) fits. Optic neuritis was not present until a few weeks before death.

M.N. 2796. D.B. 3781. June, 1900. Dr. Reynolds.

CEREBRUM: Multiple Gummata. 73·1:56·3
CEREBRAL ARTERIES: Obliterative Endarteritis. 14·3:55·1

The specimen shows gummata in the substance of the brain, as well as around the vessels at the surface. On both anterior and posterior aspects, many of the vessels passing into the sulci in the pia-arachnoid exhibit endarteritis obliterans. This is seen in the transverse fissure on the posterior aspect of the specimen. Some are surrounded by light yellow areas of nodular shape and caseous appearance. A gumma about the size of a haricot bean is present at the lower and outer edge of the putamen on the right side. Its blood-vessel, which exhibits endarteritis obliterans is seen. Another, of smaller size, is situated about $\frac{1}{4}$ inch to the right of the lower part of the third ventricle, and still another near the surface of the grey matter on the left island of Reil. Posteriorly, the area occupied by the optic thalamus, internal capsule, caudate nucleus, globus pallidus and putamen, on the right side, shows necrotic areas. The other discolorations are probably of post mortem origin.

BRAIN: BENIGN TUMOURS.

M.N. 3286. D.B. 4176. P.M.M. 506. Dec. 8, 1903. Dr. Graham Steell.

BRAIN: Glioma. 73·1:63·6

The left hemisphere was normal. The right showed a general enlargement, and it felt firm except at one point on the frontal lobe, which had a very soft semi-cystic feeling. The colour was normal. On section there was an excess of white matter through the entire hemisphere. A coronal section of the hemispheres showed that the right had about double the amount of white matter present in the left. It encroached slightly in places on the grey matter of the cortex. A moderately well-defined gelatinous mass was present at the lower part of the right frontal lobe. It occupied an area of white matter close to the lower end of the ascending frontal convolution. Several dark venules crossed it. The brain weighed 47 ozs.

The microscopic examination showed an excessively fibrillated glioma with few cells. The blood-vessels were dilated and engorged.

The patient was a male, aged 57. There was a history of illness for some months, the first sign of which was paralysis of the left arm. Subsequently the face was also involved.

M.N. 3751. D.B. 4884. May 3, 1905. Dr. Orr.

BRAIN: Tumour of Dura Mater. 71:63
73·1:41

On the inner aspect of the dura mater, at the anterior end of the right frontal lobe, is a small mass of firm new growth, which, by compression, has led to a somewhat deep depression in the cortex of that lobe.

BRAIN: MALIGNANT TUMOURS.

M.N. 1031. D.B. 1324. Dr. Harris.

BRAIN of a HORSE: Endothelioma. 73·5; 66·5

The specimen consists in the brain of a horse, and shows in the interpeduncular space, and apparently replacing the pituitary body, a rounded elongated bilobed tumour, which, on the cut surface, exhibits in the central part a large amount of pigmentation.

On microscopic examination the tumour is found to be composed of large cells resembling epithelium arranged in columns and alveoli, with a slight amount of very vascular matrix. In addition to this is a great number of large blood spaces filled with red blood corpuscles.

M.N. 1039. Dr. Dreschfeld.

CEREBELLUM: Psammo-Sarcoma. 73·2: 65·2 (64·8)

The specimen shows a large, firm, nodulated, well-circumscribed tumour, arising from and replacing the superior vermiform process. The growth is about $2\frac{1}{2}$ inches in length and about $1\frac{1}{2}$ inches in thickness at its base. The cut surface presents a whitish, uniform appearance.

Microscopic examination revealed a spindle-celled sarcoma, which contained but little intercellular substance. The blood-vessels were embryonic in type; in some places the spindle-cells were arranged in concentric layers forming nests. The centre of the nest, in some cases, showed only nuclei, in others hyaline minute calcareous particles. In the deeper parts the nests were entirely calcareous.

M. N. 1041.

CEREBELLUM, PONS, MEDULLA (Horse): Spindle-celled Sarcoma. 73·2; 65·2

On the middle lobe of the cerebellum there is an oval swelling which, on microscopic examination, has the appearances of a spindle-celled sarcoma. The growth is highly vascular.

M.N. 1042.

CEREBRUM: Glio-Sarcoma. 73·1:65·8

The section of brain has been taken from the vertex. It includes the hinder part of the upper surface of the frontal lobe, and the portion of the parietal lobe in which the tumour is situated. This is well defined and the cut surface has a firm, somewhat fibrous appearance.

Microscopically, the tumour is a glio-sarcoma.

M.N. 2716. D.B. 3908. March 10, 1901. Dr. Harris.

CEREBRUM: Angeio-Sarcoma. 73·1:65·1

From the vertical section through the cerebrum it is seen that the left hemisphere is partly replaced by a tumour. The tumour is dark coloured from vascularity, and is surrounded by a distinct membranous capsule. It apparently arises from the meninges of the great transverse fissure, and extends from the anterior extremity of the left lateral ventricle to its posterior extremity. It dilates and fills the whole cavity of the ventricle, and internally show a definite connection with the meninges. The surrounding brain substance is compressed; the left hemisphere is prominent, and the corpus callosum displaced upwards.

Microscopically, the tumour shows the typical structure of an angeio-sarcoma, with an excessive quantity of intervascular tissue.

M.N. 3300. D.B. 4224. P.M.M. 619. Aug. 20, 1904. Dr. Judson Bury.

CEREBRUM: Glio-Sarcoma. 73·1:65·8

The brain weighed 54 ozs. The left hemisphere is distinctly larger than the right (which was of normal size); the general contour is regular, and the enlargement apparently affected the anterior portion in a diffuse manner. The convolutions were flattened throughout, and the sulci shallower than normal, and these changes, though noticeable throughout the entire hemisphere, were most marked in the Rolandic area. At the upper end of the area of Rolando (on both sides of the fissure) was found a large, soft, very pale grey mass, very

slightly prominent, covering an area equal to that of half-a-crown; it had an approximately circular outline and was well defined. There was very great widening of the ascending frontal convolution, and in places it was fully $\frac{3}{4}$ inch across. A similar enlargement, but to a less extent, was noticed in the ascending parietal, and posterior thirds of the superior, middle and the inferior frontal convolutions. On section, the tumour shows a somewhat opaque, necrotic-looking area in its centre, in the margin of which is found a number of dilated blood-vessels, and outside this is a zone of semi-gelatinous structure of uniform texture, apparently composed of soft cellular elements.

Microscopically, it is a glio-sarcoma of mixed cells.

The patient was a male, aged 41. For two years he was subject to epileptiform attacks. Later there was left hemiplegia.

P.M.N. 3343. D.B. 4121. July 15, 1903. P.M.M. 441. Dr. Judson Bury.

PONS: Glio-Sarcoma. 73·3:65·8

The pons is largely occupied by a pale opaque mass of growth, seen chiefly on the ventral aspect. The growth had further encroached slightly on the dura and medulla. The surface was pale grey and convoluted. It was grooved longitudinally by the basilar artery. The growth is ill-defined, and of soft consistence. The rest of the brain was normal.

Microscopic section shows that the tumour consists of a cellular tissue very dense in structure and well supplied with blood-vessels. The cells have small, round nuclei, and they are fairly uniform in size.

The patient was a boy aged 11, and gave a 9 months' history of illness. Death was due to broncho-pneumonia.

M.N. 3506. D.B. 4302. P.M.M. 683. Jan. 26, 1905. Dr. Judson Bury.

BRAIN: Sarcoma. 73:65·1
73:67·2 (42·6)

The brain weighed 49 ozs. The meninges were congested and the convolutions were flattened. The specimen is a transverse section of the cerebral hemispheres at the level of the anterior extremity of the corpus callosum, the termination of which can be seen on posterior aspect. The tumour is situated on the upper and internal aspect of the left hemisphere at this point. It is com-

posed of soft, vascular tissue, and on its outer and lower aspect two cysts have formed with smooth, slightly pigmented lining. These cysts have arisen as the result of myxomatous degeneration. On the inner aspect the wall of the cysts is roughened from the projection of the tumour growth.

Microscopically the tumour is a round-celled sarcoma.

The patient was a woman aged 35. Three months before her death she noticed gradual loss of power in the right leg, a fortnight later the right arm began to get weaker. There was after that progressive weakness of the right side. A few days before admission she became very drowsy and speech was impaired. There is no history of headache or vomiting. She was admitted in a semi-comatose condition with right hemiplegia and motor aphasia. She died 9 days after admission. (See liver M.N. 3314—36 : 64·7, and lung M.N. 3370—25 : 66·4.)

M.N. 3577. D.B. 4386. P.M.S. 439. Apr. 17, 1905. Mr. Collier.

BRAIN : Spindle-Celled Sarcoma. 73 : 65 · 2

The specimen shows a section through the left parietal lobe of the cerebrum. The white matter is the seat of a fairly well-defined, very vascular tumour, of soft, friable texture, presenting a number of small hæmorrhages. The growth is of the size of a tangerine orange. On the mesial aspect the tumour almost reaches the surface. The cortical grey matter shows an area of infiltration of blood.

On microscopical examination the tumour is found to be a spindle-celled sarcoma; the nuclei presenting a markedly granular chromatin.

The patient was a male, aged 21.

M.N. 3722. P.M.M. 321. Sept. 16, 1902. Dr. Harris.

BRAIN : Secondary Melanotic Sarcoma. 73 : 65 · 5

Throughout the brain substance are numerous irregularly scattered nodules of melanotic sarcoma. The larger nodules are found in the grey matter more frequently than in the white substance. The primary tumour was in the skin over the crest of the right ilium, and secondary nodules were abundant in nearly all the organs of the body. There were few, however, in the liver. They were numerous in the pancreas and the kidneys.

The patient was a female, aged 41.

M.N. 3725. D.B. 4696. P.M.M. 756. Oct. 9, 1905. Dr. Judson Bury.

BRAIN: Sarcoma. 73·1:65·1 (42·9)

The brain is the seat of an irregularly nodular, cream-coloured growth of firm, almost cartilaginous, consistence. It is situated in the right frontal lobe on the upper aspect, near the superior longitudinal sinus—apparently in the superior frontal convolution. Its size is that of a large plum; it is well defined and projects slightly on the surface. The surrounding convolutions are much flattened, broadened, and are apparently the seat of marked œdema. There was a large quntity of pale, clear, thin, yellow fluid, which exuded on the slightest pressure; and when this had been removed there was left a sulcus of collapsed œdematous brain-tissue round the mass. The inner aspect of the affected frontal lobe bulged internally.

Microscopic examination shows the tumour to be a small round-celled sarcoma with a considerable quantity of a homogeneous hyaline matrix. Throughout the tissue are a large number of spherules of calcareous deposit.

The patient was a girl, aged 16. In January, 1903, she suffered from headache, vomiting, and double optic neuritis, with paralysis of the left oculomotor nerves. She was readmitted to hospital in February, 1905, with very similar symptoms. Some paresis of the muscles of the right side of the face developed. In August, 1905, she was readmitted, and then she was almost blind and had severe headache and was drowsy, but gave sensible answers. Subsequently she became completely blind, and the pupils failed to react. Later, coma set in and she died on October 7, 1905.

M.N. 3726. D.B. 3394. P.M.M. 1895, No. 135. March 20, 1896. Dr. Harris.

BRAIN: Sarcoma. 73·1:65·3

The specimen consists of a large, round, tumour mass, which occupied the right parietal region. A part of the occipital lobe is attached to it. The outer surface of the tumour is covered by the remains of the membranes. The dura could still be distinguished and stripped off the surface. The growth has a well-defined outline; and there are no areas of softening in the tumour, but in

its centre was found some calcareous deposit. The growth, as a whole, was moderately firm in consistence.

Microscopically it is a sarcoma composed of cells with oval and round nuclei.

The patient was a girl aged 8. Twelve months before her death there was noticed bulging of the skull above the right ear. Her sight became dim, and six months later she had morning sickness and unsteady gait. There was much pain. The parietal bone on the right side was much thinned and eroded. (See cranium M.N. 3727—91 : 41.)

BRAIN: CYSTIC LESIONS.

M.N. 1047.

CEREBRUM: Cyst. 73·2:67·2

The specimen shows the right hemisphere of the cerebrum from which the upper half has been removed to expose the cyst. There is a large cystic cavity, with smooth walls situated on the outer side of the optic thalamus, and extending almost to the surface.

M.N. 1048. D.B. 696. June, 1888. Dr. Dreschfeld.

CEREBRUM: Cyst. 73·1:67·2
73·1:33

At the lower portion of the cerebral tissue there is a cyst about the size of a large marble, which presents a well-defined capsule and a smooth, internal surface. The outer layer of the capsule is continuous with the cerebral tissue. The internal wall shows slight pigmentation. The cerebral tissues are ragged, shreddy and pigmented.

M.N. 2973. D.B. 4188. P.M.M. 537. Jan. 19, 1904.

CEREBRUM: Apoplectic Cyst. 73·1:67

The specimen consists in a section from the anterior part of the cerebral hemispheres. In the left hemisphere is seen the anterior limit of the cavity of a recent hæmorrhage, which had occupied the bulk of the posterior half of the centrum ovale. The blood had also made its way into the lateral ventricles. The walls of this cavity are soft irregular deposits of blood-clot. There is also a small, round cyst of regular contour, with firm, fibrous walls, and of a grey, semi-translucent appearance, which contained a thin, chocolate-coloured fluid. It was traversed by thin bands of fibrous tissue, and is situated just beneath the cortex.

M.N. 3500. D.B. 4725. Mr. J. H. Ray.

BRAIN AND CORD; Hydrocephalus and Spina Bifida. 73·6:67·1
93:12·4
71:23·2

The brain is enlarged, the enlargement being most evident in the right hemisphere. The vessels of the pia are congested. In the lumbo-sacral region a spina bifida is present. The fronto-occipital circumference of the head was 22 inches. Measurement over the vertex, from one external auditory meatus to the other, was 14½ inches. Both fontanelles were widely open.

The child, aged 1 year and 8 months, was listless and apathetic, and did not show any signs of intelligence. The apathy increased, and death was preceded with gradual emaciation.

M.N. 3729. D.B. 4821. P.M.S. 489. Feb. 5, 1906. Mr. Thorburn.

BRAIN: Cyst following Injury. 73·1:67·2

The brain weighed 51 ozs. In the left frontal and lobe is a large cyst with fairly smooth, though very soft, walls, apparently composed of brain tissue. This cyst reached the surface of the cortex on the under aspect the frontal lobe and at this point the cyst wall was composed of adherent dura mater. The dura was also firmly adherent to almost the whole of the anterior portion of the left temporo-sphenoidal lobe. The cyst communicates with the anterior horn of the lateral ventricle. The meninges show general congestion.

The patient was a male, aged 37. Eight years ago he was admitted to M.R.I. suffering from compound fracture of the skull. He was trephined, and recovered. No after-effects, except transient attacks of aphasia. On Feb. 1, 1905, he was suddenly seized during the night with coma; the day after, he was admitted to the M.R.I., and again trephined. The cyst in the cerebrum contained cerebro-spinal fluid. He died next day. The cyst was due to the original injury, which had caused disintegration of the nerve tissue of the frontal lobe.

NERVE: SPECIFIC INFLAMMATIONS.

M.N. 1071.

NERVE: Leprosy. 75 : 56 · 5

The specimen shows the irregular nodular enlargement which occurred along the course of a nerve in leprosy.

NERVE: BENIGN TUMOURS.

M.N. 1073. D.B. 685. Apr. 13, 1888. Dr. Mules.

NERVE TRUNK: Fibroma. 75:63·2

The specimen consists of a portion of a large, nerve trunk, which, at one end, has divided into two branches. Just above the point of bifurcation there is an oval, encapsuled mass of newly formed tissue. It is about two inches in length and one and a half inches in breadth. The superficial fibres of the nerve trunk are spread out over the growth; the deeper fibres are separated by the extension upwards and downwards of the fibrous tissue.

Microscopically, the specimen shows strands of dense, fibrous tissue, but nuclei are few in number.

M.N. 1074.

NERVE: Fibroma. 75:63·2

The specimen shows a lobulated mass, about 5 inches long. At the upper end there is a bundle of nerve-fibres, which run over the lobulated mass to reach its lower extremity; in the latter place several of the fibres are thickened and bulbous in appearance, evidently invaded by the growth. The tumour has a capsule and on section presents a uniform, dense, cream-white appearance.

Microscopically it consists of dense, fibro-cellular tissue.

M.N. 2751. D.B. 2548. Mr. Thorburn.

ULNAR NERVE: Amputation Neuroma. 75:63·2

At the lower end of the specimen the nerve terminates in an oval-shapel, dense, mass of tissue. About 1 inch above the bulbous mass the nerve divides, but both branches are involved in the swelling.

Microscopically the mass consists of fibrous tissue, and a few axis cylinders.

NERVE: MALIGNANT TUMOURS.

M.N. 1070. Mr. Whitehead.

NERVE TRUNK: Sarcoma. 75:65·2

The specimen is a large mass of new growth, from which there projects a nerve trunk. The mass of tissue is encapsuled and is dense in structure. The nerve trunk passes into the mass at the upper end, and emerges about an inch lower down. Histological examination showed the typical structure of a spindle-celled sarcoma.

M.N. 3736. D.B. 4852. Feb. 24, 1906. Mr. Thorburn.

POPLITEAL NERVE: Sarcoma. 75:65·2

The tumour has an elongated oval form and a fairly well-defined capsule. At the lower end of the specimen a portion of the nerve can be seen, but it cannot be traced through the mass of growth. On the cut surface the sarcoma presents a soft friable structure slightly myxomatous in some areas and very vascular in others.

Microscopically, the tumour is a spindle-celled sarcoma.

The patient was a woman, aged 29. Small molluscа fibrosa had existed for about three years on her chest. The sarcoma of the popliteal nerve had lasted two years, and there had been considerable pain shooting along the course of the nerve. The tumour was removed Feb. 23, 1906.

EYE: MECHANICAL LESIONS.

M.N. 1059.

EYE: Shrunken Globe. 78 : 28
78 : 24

The specimen shows an eye deformed, opaque, and shrunken from the presence of a foreign body (a piece of metal) embedded in its substance. The end of the piece of metal is seen projecting on the surface.

M.N. 1061.

EYE: Staphyloma of the Cornea. 78 · 3 : 24

The specimen shows the cornea enormously enlarged and thinned. A few remnants of the iris are adherent to the posterior surface of the cornea.

EYE: RETROGRESSIVE DISORDERS.

M.I. 1057.

EYE: Opacity of Lens. 78·4:42

The lens is enlarged and shows uniform opacity.

EYE: INFLAMMATORY LESIONS.

M.N. 1063.

EYE: Irido-Choroiditis. 78·2:54
78·2:42·9

The globe is much shrunken and distorted. There are areas of calcification in the choroid.

M.N. 1065.

EYE: Cornea Cicatrix. 78·3:55·8

The specimen shows the front view of an eye with a penetrating cicatrix crossing the cornea. The pupil is closed and the iris is adherent.

M.N. 1068.

EYE: Subacute Panophthalmitis. 78:54·2

The specimen consists in an antero-posterior section of an eye. There is general enlargement. The centre of the eye is filled with inflammatory exudate and blood-clot. There is also fibrinous exudation in the ciliary region and in the anterior chamber.

EYE: BENIGN TUMOURS.

M.N. 1053.

EYE: Glioma of Retina. 78·1:63·6

The eye has been opened by an antero-posterior section. The retina is the seat of a glioma in the form of a ragged irregular layer of growth.

M.N. 1064.

EYE: Glioma of Retina. 78·1:63·6

The specimen consists in the posterior half of an eye. The retina is the seat of a gliomatous tumour, which has become partially detached.

EYE: MALIGNANT TUMOURS.

M.N. 1051. Dr. Wilson.

EYE: Melanotic Sarcoma. 78·2:65·5

The specimen shows the eye bisected antero-posteriorly. The entire organ is filled with a melanotic sarcoma. The extension of the growth has been limited by the sclerotic.

M.N. 1056.

EYE: Melanotic Sarcoma. 78·2:65·5

The entire eye is occupied by a melanotic sarcoma.

M.N. 1062.

EYE: Melanotic Sarcoma. 78·2:65·5

The specimen is a half-section of the eye which shows a melanotic sarcoma occupying half of the eyeball. It has a broad base, a short neck, and a rounded protuberant mass.

M.N. 1067.

EYE: Melanotic Sarcoma. 78·2:65·5

The growth fills half the eye. It shows a broad base, and protuberant mass, and pushes the retina in front of it.

M.N. 2770. D.B. 4049. Feb. 7, 1903. Dr. J. Gray Clegg.

EYE: Melanotic Sarcoma. 78·2:65·5

The specimen consists in the half-section of an eye, which shows on the outer surface of the corneo-scleral junction a small flat growth of melanotic sarcoma. There is no sign of invasion. The eye is otherwise normal.

EAR: INFLAMMATIONS.

M.N. 529. Mr. Turner.

INTERNAL EAR: Abscess. 77 : 54 · 5

The specimen shows the right petrous bone and portion of the neighbouring bones of the skull. An abscess formed in the middle ear, causing necrosis of the bone in the floor of the middle fossa, leading to perforation and an accumulation of pus under the dura mater over the anterior surface of the petrous bone. A piece of whale-bone has been passed through the opening in the roof of the middle ear into the middle fossa of the base of the skull.

M.N. 3747.

EAR: Suppurative Otitis Media. 77 : 54 · 4

A section has been made through the temporal bone to show the cavities of the external, middle and internal ear. In all there is a deposit of inflammatory material. The tympanic membrane and the ossicles have disappeared. The squamous part of the temporal bone shows some erosion on its outer aspect.

TEGUMENTARY, etc., SYSTEM.

SKIN: RETROGRESSIVE DISORDERS.

M.N. 1077. Mr. Jones.

SKIN OF THE FOOT: Perforating Ulcer. 81 (09 · 1) : 47

On the plantar aspect of the foot there is an ulcer, the size of a sixpence, situated ½ inch behind the third and fourth toes. The edges are raised and the ulcer narrows as the deeper tissues are reached, so that the floor itself is not visible. On the dorsal aspect, immediately behind the second and third toes, there is an irregularly-shaped ulcer. The edges are undermined, the sides of the ulcer are somewhat clean cut, and the base is formed by the deeper tissues. The ulcer is shallow externally, and deep in one place internally, the floor being smooth in the shallow part and nodular in the deeper part. About an inch behind the second and third toes there is a number of small circular or oval areas consisting in a lighter-coloured tissue with pigmented centres.

M.N. 1078. D.B. 1435. May, 1889. Mr. Jones.

FOOT: Perforating Ulcer. 81 (09 · 1) : 47

A perforating ulcer, the size of a shilling, is situated on the plantar aspect, ½ inch behind the second and third toes. The edges are much raised, slightly irregular, and in some places much undermined. The sides of the ulcer are smooth, and partly terraced. The base of the ulcer is formed by the deeper structures, and a band of the plantar fascia is exposed and eroded. On the dorsal surface, about ½ inch behind the third toe, there is an irregularly-shaped swelling on which are seen several small circular necrotic areas, and from the larger of these a small mass of necrosed tissue projects externally. On the external dorsal aspects of the 1st phalangeal joints of the 2nd, 3rd, and 4th toes, the skin is raised and smooth over circular areas. These present a somewhat similar appearance to the swollen patch on the dorsum, but there is no distinct necrosis.

M.N. 1079. Mr. Heath.

SKIN OF THE FOOT: Perforating Ulcer. 81 (09 · 1) : 47

The ulcer is about the size of a florin, and is situated on the plantar aspect of the 5th metatarso-phalangeal joint, about half-an-inch from the external border. The edges appear to have been raised, but the epithelium is now removed, exposing the subcutaneous tissue. The sides of the ulcer are slightly terraced, and a little irregular; the base of the ulcer is formed by the deeper tissues; the floor is smooth and necrotic. On the dorsal surface of the 2nd and 4th toes the skin over the phalangeal joint is raised and swollen.

M.N. 1652.

SKIN: Perforating Ulcer. 81 : 47

The specimen is an elliptical piece of skin and subcutaneous fat. In the middle line are situated two ulcers, the lower being the larger. They are ovoid in shape, and their punched-out appearance is very well seen. The skin margin is smooth, the base of the ulcer is irregularly nodulated, and fairly deep below the surface.

M.N. 1654. D.B. 747.

SKIN OF LEG: Chronic Ulcer. 81 (08) : 45 · 1

The specimen consists of a disc of skin and subcutaneous tissue. The greater part of the surface is occupied by an ulcer with slightly raised sides, which are somewhat thickened. The outline is serpiginous. The floor of the ulcer is comparatively smooth, and is composed of granulation tissue.

Microscopic examination shows that the epithelium round the ulcer has a very irregular form, and elongated processes, in some of which cell nest-like formations occur. The epithelium is completely absent from the floor of the ulcer, which is composed of vascular granulation tissue, and in the lumen of the vessels may be seen a meshwork of fibrin threads. There is a large amount of leucocytic infiltration.

M.N. 2767. Dr. Vaughan (Crewe).

SKIN: Cast. 81 : 46

The specimen is a large portion of the superficial layers of the skin, which was thrown off spontaneously after treatment by thyroid extract.

SKIN : INFLAMMATIONS.

M.N. 1655. D.B. 747A.

SKIN OF LEG : Chronic (Callous) Ulcer. 81 · (08) : 55 · 3

The ulcer is rounded in form, about the size of a five-shilling piece, has pigmented raised edges, a punched-out shape, and a comparatively smooth base. There was no history of syphilis in this case.

M.N. 3167. March 13, 1905. Mr. Collier.

SKIN : Ulcer. 81 : 55 · 3

The specimen shows a group of superficial ulcers of irregular shape. The border of the ulcer consists of somewhat thickened, roughened, and pigmented epithelium, while the floor shows the characteristic pale-red colour of œdematous granulation tissue.

The patient was a girl aged 24 years, who had suffered from infantile paralyses of the right leg since the age of three years. Ulceration of the leg had frequently occurred since then. The right leg was completely paralysed and much wasted. Trophic ulcers were present in the lower third of the leg. The leg was amputated at the knee-joint. Recovery was uneventful.

SKIN: SPECIFIC INFLAMMATIONS.

M.N. 3019. Mr. Wright.
SKIN: Malignant Pustule. 81:56·9

On the surface of the skin are seen three well-defined rounded swellings, the centre of each presenting an area of necrosis. The swollen tissue is somewhat darker than the surrounding skin.

The patient was a man, aged 20 years, who was infected from a scratch with a butcher's knife. The duration of the condition was three days, and vesicles around the central areas were well marked at the time of operation.

M.N. 3161. Mr. Thorburn.
SKIN: Malignant Pustule. 81:56·9

The specimen consists of a portion of the skin and subcutaneous tissue, the site of a malignant pustule. The centre of the area shows a necrosed depression. The remaining part of it forms a flat swelling, the surface of which is rough and discoloured from punctiform hæmorrhages, and round the margin are numerous blebs containing a clear fluid.

The patient was a man, aged 43 years, a worker in felt. The skin at the outer canthus of the left eye was affected. Inoculation had taken place, probably through a scratch, four days previous to operation. Excision of the area was performed. Recovery was uneventful. There were no constitutional symptoms. Some time later a plastic operation was successfully performed.

M.N. 3579. Dr. Ferguson (Cairo).
SKIN: Small-pox. 81:57·2

The skin is covered with numerous umbilicated vesicles, the majority of which are discreet, but a few are confluent. One or two are the seat of hæmorrhage.

Microscopic examination shows that the area of the vesicle is the seat of round-celled infiltration, groups of cells having collected in spaces which have formed in the epithelial layer of the skin, and also in the connective tissue immediately subjacent.

SKIN: HYPERTROPHY.

M.N. 1639. D.B. 958. June 13, 1889. Dr. Martin.

NAILS OF TOES: Hypertrophy. 81 : 62

The overgrown nails from the 1st and 2nd toes are seen as blackened horny masses in the shape of curved solid processes.

M.N. 1668. D.B. 2731. Trinidad Collection.

SKIN: Elephantiasis Arabum. 81 : 62
82 : 62
81 : 56 · 5

This specimen is a small, square-shaped portion of the skin, with greatly thickened subcutaneous tissue attached. It was removed from a patient who suffered from elephantiasis arabum, in conjunction with tuberculated leprosy. The surface of the skin presents a number of rough, white, tuberculated projections, and the subepithelial tissue is of a pale, white, fibrous character.

M.N. 1669. Mr. Bradley.

SKIN: Elephantiasis. 81 : 62

The surface epithelium is very much atrophied, and the connective tissue of the dermis is very œdematous. There is a good deal of inflammatory exudation of leucocytes in the neighbourhood of the epidermis, and there are a few multi-nucleated cells. The connective tissue beneath the skin shows very extensive dilatation of the lymph spaces, and separation of the bundles of white fibres.

M.N. 2114. Dr. Cullingworth.

SKIN OF LABIUM MAJUS: Elephantiasis. 81 (61) : 62

The skin is very much hypertrophied and presents a warty surface. The whole structure has lost its normal contour and forms a very large mass.

SKIN: BENIGN TUMOURS.

M.N. 1643. D.B. 316.

SKIN: Fibromatous Elephantiasis. 81 : 63 · 2

The skin is thickened and indurated, and exhibits a few flat, whitish nodules.

On microscopic section it is found that the thickening is due to the presence of cellular connective tissue, which is here and there fibrous in character, and in some areas has a myxomatous appearance.

M.N. 1670. D.B. 2725.

SKIN: Papilloma 81 : 64 · 6

A portion of the skin is the seat of a very extensive papillomatous growth, and the processes have a soft spongy appearance.

On microscopic section it is found that the tissue refuses to stain. The base of the processes is infiltrated with round cells, the exact character of which cannot be made out.

M.N. 1672. D.B. 845. April 25, 1888. Prof. YOUNG.

SKIN: Multiple Papilloma. 81 : 64 · 6

The skin is thickly covered by a multitude of papillomata of various sizes.

On section it is seen that each process consists of a core of somewhat loose, fibrous tissue, with a covering of squamous epithelium.

M.N. 1673. D.B. 2724.

HAND: Papilloma. 81 (07·2) : 64·6
07·2 : 12·2

A large papilloma has grown on the dorsum of the hand. It presents a generally rounded form, and its surface is irregular, from the presence of a multitude of small papillary processes of outgrowth, of which the tumour is made up. At the side of the tumour a section has been made to show the essential structure of the mass, and here may be seen the central stem of connective tissue with a papillary covering of epithelium. The hand is malformed. The middle finger is almost completely absent and the little finger is a small atrophied stump.

M.N. 1674. D.B. 754. Nov., 1888. Prof. Young.

SKIN OF THE HEEL: Keratoma. 81 (09·1) : 64·6

The horny outgrowths of the skin are divided up into thick strands which project from the surface of the skin for 2—3 inches.

M.N. 1710. D.B. 1169. Nov. 4, 1890. Mr. Hare.

SKIN OF THE ARM: Soft Fibroma. 81 (06) : 63·2

The specimen shows a portion of the skin of the arm covering an area in which a group of subcutaneous tumours has formed. The tumours are rounded, and as a rule sessile; but one or two have a distinct tendency to form pedicles. The skin over the surface is smooth and atrophic in appearance, and over the most prominent of the tumours superficial ulceration has commenced. Section of the tumours gives evidence that they are of uniform, opaque, comparatively soft, cellular structure, moderately vascular in character.

Microscopic section shows that the tumour is a soft fibroma. In the tissue are centres in which the nuclei are large, oblong or rounded, whilst the matrix is homogeneous.

M.N. 1711. Mr. Whitehead.

SKIN OF THE SHOULDER: Fibroma. 81 (06 · 1) : 63 · 2

This specimen consists of a section of a tumour from the region of the shoulder, with a portion of the skin. The tumour formed during life a projecting mass on the prominence of the shoulder. The skin over the most prominent part was thin, and in some places had ulcerated. The tumour is rounded, firm, and definitely circumscribed by a capsule. The surface of section displays the typical watered silk appearance of a fibroma.

Microscopic examination shows the tumour to consist of fully formed fibrous tissue, with a number of cells interspersed amongst the bundles of fibres.

M.N. 1723. D.B. 2723.

SKIN: Fibroma. 81 : 63 · 2

A rounded prominent tumour mass projects markedly above the surface level. The skin covering it is soft and œdematous. A constricting line of black thread has been applied to the tumour, and is buried in its substance.

On microscopic section it is seen to consist of a uniform cellular tissue, and to be a very soft fibroma. On the surface is a layer of necrotic granulation tissue.

M.N. 1725. Prof. Young.

SKIN: Papilloma. 81 : 64 · 6

The specimen consists of a portion of the skin, the site of a flat, finely divided, papillomatous growth. In the centre of the area, the surface of the skin is broken, and a cavity was formed underneath it. The papillomata surround the opening, and form a lining wall to the cavity.

Microscopic examination shows the typical structure of a papilloma. Delicate processes of connective tissue, richly supplied with blood-vessels, are covered by a thick layer of skin epithelium.

M.N. 2111. Mr. Turner.

SKIN : Multiple Papilloma. 81 : 64 · 6

From the surface of the skin spring innumerable papillomata of small size. Amongst them are to be noticed a few hairs.

Microscopic section shows that the processes consist of a central stem of delicate fibrous tissue, and a thick covering of squamous epithelium.

M.N. 2777. D.B. 3628. Sept. 2, 1897. Mr. Whitehead.

ARM : Molluscum Fibrosum. 81 (06) : 63 · 2 (63 · 1)

The hand was perfectly free from any abnormal conditions, and the patient had the free use of his wrist and fingers. Sensation was natural all over the tumour. Over the shoulder and about the middle of the forearm there were large superficial ulcers, due to pressure. At one spot pus was being freely discharged from a deeply situated abscess in the substance of the growth at its most dependent part. The tumour with the arm and scapula weighed $70\frac{1}{4}$ lbs. The tumour had grown almost entirely on the external surface of the limb and around the shoulder joint. It ceased at the level of the wrist and there was practically no abnormal growth of skin over the greater part of the flexor surface of the forearm and arm, while the extensor surface of the upper half of the arm and the region of the shoulder showed earlier stages of growth in the skin. About the lower three-fifths of the growth presented the appearance of a molluscum fibrosum with pendulous folds and a coarse irregular ridged surface dotted here and there with the enlarged openings of sebaceous glands or hair follicles. There was a large ulcerated surface on the largest lobule opening into a cavity in the tumour, due to degeneration and breaking down of some of the growth and making a space large enough to contain an orange. Lying along the outer border and front of the forearm were a large number of separate small pedunculated nodules, and from the corresponding border of the main growth sprang other larger nodules. About halfway up the arm and chiefly on the extensor surface were a few isolated patches of small size, showing sessile papillary growth with ill-defined margin. About the shoulder the molluscum was more diffuse and sessile, and presented areas of ulceration. Under the skin was a huge

lipomatous growth consisting of large lobules which were granular from the amount of fibrous tissue. A branch of the external cutaneous nerve was traced from the elbow to the wrist, and it was found that while the nerve trunk was normal, at intervals branches were given off which passed directly up to the necks of the pedunculated nodules and were distributed in them.

Microscopical examination of various areas was carried out. The skin of the shoulder was normal except for some slight round-celled infiltration of the corium. The early nodules showed a tissue composed of white fibres with a few yellow elastic fibres. The papillæ protruded and pushed out the epithelial layer which was at first thinned. The sections of the larger growth showed, in addition to the formation of white and yellow fibres, myxomatous degeneration, Over these also the epithelial layers were thicker, and in some cases even hypertrophied. The sebaceous glands were hypertrophied and placed deeply in the tissue. In the areas where fatty tissue occurred, a large amount of fibrous tissue was found mixed with the fat cells, and there was round-celled infiltrations of the lymphatics and blood-vessels.

The patient was a man aged 32. He had suffered from fracture of the right arm when he was between 5 and 6 years of age, and about 18 months after this a rash formed on the back of the right arm, and the flesh began to swell and hang down in folds. Up to the sixteenth year the growth was slow, but it gradually extended to the wrist below and to the shoulder above. After this it grew faster and the rate accelerated till the time of the operation, when he was 27. In the last 4 years it had doubled in size. An earlier attempt to operate had failed because of the amount of hæmorrhage. The arm was amputated and the patient left the hospital in Nov., 1897. He was readmitted in Jan., 1898, to have a mass removed from the anterior chest wall in the right side. This mass resembled the growth on the arm, and commenced to grow rapidly immediately after he left hospital. It weighed about 2 lbs. In Jan., 1902, he was in robust health and there was no recurrence.

The above description has been taken from Mr. Whitehead's paper in the *British Medical Journal*, March 29th and May 3rd, 1902.

M.N. 2863. D.B. 4158. P.M.M. 491. Nov. 5, 1903. Dr. Graham Steell.

SKIN OF THE ABDOMEN: Congenital Cavernous Naevus. 81 (05 · 1) : 64 · 3

The tumour was situated in the upper part of the abdomen in the right hypochondrium. It had a spherical outline, and smooth surface, and was of a dark purple colour. It projected half an inch from the level of the surface of the skin, and extended more deeply into the subcutaneous tissue. The outline is well defined and regular; but there is no apparent capsule. On section, it was found to consist of numerous small vascular spaces containing recently coagulated blood. The spaces are separated by strands of fibrous tissue of variable thickness.

Microscopically, the specimen was a typical cavernous nævus, showing spaces filled with blood, lined by endothelium, and separated by bands of connective tissue, cellular in character. There was some hæmorrhagic infiltration.

The patient, a male aged 58, died from columnar-celled carcinoma of the rectum.

M.N. 3081. Mr. Wright.

SKIN: Naevus. 81 : 64 · 3

The specimen is a portion of skin over the greater part of which the surface is roughened and tuberculated, from the presence of a capillary nævus.

This was removed from a baby a year old. The nævus had been very slight at birth and had grown slowly.

M.N. 3199. D.B. 4453. March 7, 1903. Mr. Whitehead.

SKIN: Molluscum Fibrosum. 81 (08 · 1) : 63 · 2 (63 · 1) (63 · 5)

This specimen consists of a large discoid and somewhat pendulous mass of subcutaneous fibroma. The skin over the surface is very much shrivelled. At the back of the specimen is seen the broad base of attachment, and here the transition from the tumour tissue to the surrounding fat is not clearly marked. At the top of the specimen a section has been placed to show the structure of the tumour, and here may be seen a basis of fibro-myxomatous tissue with groups of fat cells in the spaces.

The patient was a girl, aged 24 years. The disease was of ten years standing, and a growth had been removed five years ago. The growth recurred.

M.N. 3200. D.B. 2802.

SKIN : Molluscum Fibrosum. 81 : 63 · 2

The specimen consists of a flat pendulous fibroma of the subcutaneous tissue. The skin over the surface is markedly shrivelled and pimented.

M.N. 3678.

SKIN : Fibroma. 81 : 63 · 2

The tumour consists of a closely aggregated group of papillomatous tumours covered by epithelium, and composed of white fibrous tissue, almost devoid of nuclei. The details regarding this tumour have been lost.

SKIN: MALIGNANT TUMOURS.

M.N. 946. D.B. 1075. Dr. Martin.

SKIN OVER TIBIA: Squamous Epithelioma. 81 (08·4) : 66·1
97·6 : 66·1
97·6 : 55·1

The specimen consists of a small portion of the tibia with the skin and soft tissues over it. The bone is extensively and densely sclerosed except at a point where an ulcerating tumour has formed, and under the site of this tumour it is irregularly excavated. The edge of the tumour has the characteristic appearance of a squamous epithelioma.

M.N. 979. Mr. Jones.

SKIN OF THIGH: Epithelioma. 81 (08·2) : 66·1
81 (08·2) : 45·2
97·3 : 66·1
97·3 : 55·1

On the outer side of the leg, a little above the knee-joint, an oval-shaped ulcer has formed, obviously resulting from the growth of the tumour. The edges are raised and rounded, and irregularly excavated. The floor is very uneven, and shows one large projecting mass of tumour growth. The specimen has been divided by a section through the middle line of the femur, and on the cut surface it is seen that the excavation has passed down to the bone, and has caused an irregular destruction over a large part of the lower end of the shaft. Outside the area of bone destruction, there is a good deal of osteosclerosis.

Microscopic examination of the edge of the ulcer shows that it is a squamous epithelioma with a large amount of inflammatory reaction.

M.N. 1676. D.B. 680. Mr. Jones.

SKIN OF THIGH: Squamous Epithelioma. 81 (08·2) : 66·1

In the centre of the skin there is a fungating tumour mass, with an ulcerated surface. The edges of the ulcer are rounded, and the floor shows irregular papillary formation.

On microscopic section it is seen that the tumour is a squamous epithelioma.

M.I. 1678. D.B. 2771.

SKIN OF JAW: Sarcoma. 81 (02) : 65 · 3

The skin of the jaw presents on the surface an ulcer with undermined margins and a base which consists of a solid mass of tumour growth.

Microscopic section shows that the tumour is sarcomatous in character, with considerable variety of cells, some of which are arranged in alveoli.

M.N. 1679. D.B. 1322. Mr. Thorburn.

SKIN: Round-celled Sarcoma. 81 : 65 · 1

In the skin there is a discoid flat growth rising about half-an-inch above the surface. The crown of the growth presents an irregularity due to the formation of a granulating ulcer. The substance of the tumour is composed of a uniform tissue with a delicate fibrous matrix.

Microscopic section shows that the tumour is composed of groups of round cells, which assume an arrangement generally alveolar. There is a considerable amount of extravasation of leucocytes. On the surface is seen the granulation tissue. At the edge of the area the skin is in a much atrophied form.

M.N. 1679B. D.B. 1322. Mr. Thorburn.

SKIN: Squamous Epithelioma. 81 : 66 · 1

The skin is the site of a round fungating mass of tumour with an ulcerated surface.

Microscopic section shows that it is a typical squamous epithelioma. There is a large amount of tissue reaction at the base of the tumour.

M.N. 1681.

FINGER: Squamous Epithelioma. 81 (07 · 4) : 66 · 1

Round the area of the terminal joint the finger is considerably swollen. On the dorsum there is an ulcer about the size of a sixpence, the edges of which are raised and thickened. A small prominence at the side of this has also begun to ulcerate in two places. The nail is very much distorted and atrophied.

M.N. 1682. Mr. Lund.

SKIN OF FOREARM: Epithelioma. 81 (06·4) : 66·1
81 (06·4) : 45·2

An epitheliomatous ulcer has covered a large portion of the forearm. The tumour originated apparently on the radial aspect of the limb. It has caused great deformity. The floor of the ulcer is composed of papillomatous processes, which give it a very uneven surface. The tumour has invaded the whole of the tissues of the arm, including the bones; these are present as soft structures, which cut with a knife. There is a history of 27 years' growth.

M.N. 1683.

LEG: Epithelioma of the Skin. 81 (08·4) : 66·1
81 (08·4) : 45·2

On one aspect of the leg the skin is the seat of a very large ulcer, the result of an epithelioma. The edges of the ulcer are free from marked thickening. The floor is ragged and irregularly punched out. At one point the ulceration has almost exposed the surface of the tibia.

M.N. 1685. D.B. 1202. Feb. 16, 1891. Mr. Hare.

LEG: Squamous Epithelioma, Ulceration. 81 (08·4) : 66·1
81 (08·4) : 45·2
97·6 : 44

The squamous-celled cancer originated in the skin over the tibia, a short distance above the ankle-joint. A very deeply burrowing ulcer has formed in the centre of the tumour area, and the floor is composed of the tumour tissue which has taken the place of the eroded bone. Outside this excavation the floor of the ulcer is irregularly nodular, but comparatively smooth. The skin surrounding the ulcer is in a state of atrophy.

The microscopic structure is that of a typical squamous epithelioma, many of the epithelial processes have the styloid form. (See skin M.N. 3557—81 : 66·1.)

M.N. 1686.

LEG: Squamous Epithelioma. 08 (81) : 96 · 1

The skin is the site of an enormous tumour which covers three-fourths of the circumference, and is distinctly raised above the surface. The surface of the growth shows widespread ulceration, which has excavated the tissue to a considerable depth in places; otherwise the mass has a spurious lobulation, due to the presence of deep clefts and fissures.

M.N. 1687. D.B. 2954. Mr. Southam.

LEG: Squamous Epithelioma. 81 (08 · 5) : 66 · 1

The specimen shows a large epitheliomatous growth in the skin of the left leg around and above the internal malleolus. The surface of the tumour is uneven from the tendency of the growth to spread as a series of rounded papilliform processes. It has a dry, scaly, brownish-yellow appearance.

M.N. 1688.

FOOT: Squamous Epithelioma of the Heel. 81 (09) : 66 · 1

In the foot a mesial incision has been made antero-posteriorly through the heel, and divides into two parts a fungating cauliflower-like epithelioma. The base of the tumour has passed down as far as the periosteum, but has not invaded the bone.

M.N. 1689. D.B. 801. March 12, 1889. Dr. Martin.

FOOT: Spindle-celled Sarcoma. 81 (09 · 2) : 65 · 2

The specimen shows a foot which has been divided longitudinally, the incision passing through the angle between the 4th and 5th toes. On the dorsum of the foot, and over the proximal metatarsal joint a fungating tumour is seen springing from the skin by a stout pedicle. The tissue forming the crown projects around the margin of the growth somewhat after the manner of a mushroom. The growth has invaded the subcutaneous tissues, but has not involved the bone. The surface of the tumour is scaly.

The microscopic structure is that of a spindle-celled sarcoma.

M.N. 1690. D.B. 2953.

FOOT: Squamous Epithelioma. 81 (09) : 66 · 1

On the inner border and extending towards the dorsum there is a very large area of tumour growth, with a serpiginous outline, a raised and thickened border, and a rough ulcerated surface. Apparently there has been a previous amputation of the big toe.

M.N. 1691.

FOOT: Epithelioma. 81 (09) : 66 · 1
81 : 45 · 2

A large, flat, fungating tumour has formed, having as its centre the region of the external malleolus. The tumour mass is raised about half an inch above the surface. The central portion is deeply excavated by ulceration; and the floor of the ulcer consists of an irregular series of rounded, flattened prominences. The surface of some of these processes has a somewhat honey-combed appearance. The superficial layers of the skin adjacent to the tumour are becoming detached in large scales.

M.N. 1709. D.B. 17. April 18, 1885. Mr. Whitehead.

THIGH (Subcutaneous Tissue): Columnar Carcinoma. 81 · (08 · 2) : 66 · 4

Over the rounded, somewhat spongy, tumour mass, the skin is darkly pigmented.

Microscopic section shows the tumour to consist of epithelial tissue like that of a mucous polypus. There is a small amount of very cellular matrix in the form of a meshwork. Lining the spaces in the meshwork, and covering the small processes that spring from these strands and projecting into the spaces, is a thick layer of columnar epithelium.

M.N. 1715. Mr. Whitehead.

SKIN OF ABDOMEN: Spindle-celled Sarcoma. 81 (05) : 65 · 2

The specimen consists in an elliptical portion of the skin and subcutaneous tissue. It shows a group of rounded nodules with a covering of smooth, slightly discoloured but unbroken, skin. A section shows that the tumour has grown to some depth, reaching at one part as far as the muscular layer. The tissue of the growth is of a uniform opaque cellular character, and in one of the nodules there is a cystic space due to angeiomatous softening.

Microscopically, the growth has the structure of a small spindle-celled sarcoma.

M.N. 1716. Sept. 2, 1884. Mr. Heath.

SKIN OF FINGER: Melanotic Sarcoma. 81 (07 · 5) : 65 · 5

The specimen consists of a finger, the extremity of which is the site of a rounded, pigmented tumour.

Microscopic examination shows that this is a melanotic sarcoma.

1905.

M.N. 1717. Dr. Dreschfeld.

FOOT: Spindle-celled Sarcoma. 81 (09 · 2) : 65 · 2

The specimen consists of the left foot. On the dorsum are seen two rounded tumours projecting considerably above the surface. The skin covering the lower tumour is ulcerated. In the upper tumour it has been retracted, and has apparently been invaded.

The upper tumour has a fibro-cellular structure, microscopically; the lower is cellular throughout, and the predominant type of cell is spindle-shaped.

M.N. 1718. March 31, 1884. Mr. Jones.

FOOT: Pigmented Epithelioma. 81 (09·1) : 66·1 (42·8)

Across the middle of the plantar arch, and extending some distance on the outer aspect of the foot, is a zone of pigmented tumour formation, which affects the whole skin, and forms well-defined nodules. The outer aspect is somewhat crusted. Section shows that the tumour is the seat of much dark-brown and black pigmentation, and that the growth is invading the subcutaneous tissue.

On microscopic examination the older parts of the tumour present the usual agglomeration of rounded pigmented cells, rapidly becoming necrotic. In these areas also there are large masses of pigment apparently collected in the lymph spaces. Other parts of the tumour show a well-defined alveolar arrangement, which can be connected directly with the downward growth of the epithelial layer of the skin, and in the large epithelial cells which fill the alveoli, granules of melanin were discovered.

M.N. 1719.

SKIN OF BACK: Melanotic Sarcoma. 81 : 65·5

The tumour mass has the appearance of an aggregation of several separate nodules. Each nodule is rounded, fairly smooth on the surface, and of a brown colour. Ulceration has commenced at several points. One of the nodules has been sectioned, and here the covering layer of skin is much attenuated. The substance of the tumour has a uniform brownish-grey colour.

M.N. 1720. Mr. Whitehead.

SKIN: Melanotic Sarcoma. 81 : 65·5

The skin is the seat of a large mass of tumour, which presents a flat, rounded form slightly lobulated. The superficial epithelium shows a variegated pigmentation (yellow, brown and black), and at the edge, where an incision has been made into the tissue, the structure is seen to be that of a uniform cellular pigmented growth. The pigment is not very richly developed in the centre of the tumour.

M.N. 1722. Sept. 3, 1883. Mr. Whitehead.

SKIN OF GROIN: Squamous Epithelioma. 81 (05·6) : 66·1

The skin is the site of a large fungating tumour which projects fully an inch above the normal level, and has a regular, comparatively smooth outer surface. On the cut surface it is seen to be growing, not only towards, but also for a considerable depth into the subcutaneous tissue.

Microscopically, it is seen to be a reticular squamous epithelioma, composed almost entirely of cells which correspond to those of the Malpighian layer of the skin.

M.N. 2985. Feb. 6, 1902. Mr. Collier.

SKIN OF GROIN; Melanotic Sarcoma. 81 (06·5) : 65·5

A portion of the skin, removed by operation from the groin, was affected with melanotic sarcoma. The growth measures four inches in diameter, and projects above the skin as an irregular ulcerated mass. It is deeply pigmented in parts, and elsewhere is comparatively free from pigment. The inguinal glands were infiltrated with the growth.

The patient was a female, aged 42 years. Seven weeks before operation she noticed that a mole began to enlarge, and to be ulcerated. Loss of flesh was rapid. Operation, Feb. 6, 1902.

M.N. 3088. Dec. 21, 1904. Mr. Collier.

SKIN OF CHEEK: Epithelioma. 81 (02·5) 66 : 1

The specimen is a diamond-shaped portion of the cheek removed by operation. The ulcer is rounded in shape and about the size of a florin. Its edge is raised above the surrounding skin, and is somewhat everted. Its surface is irregular and has a fungating, warty appearance.

The patient was a man aged 51 years, who worked in oil and tar works. There was a 5 months' history of ulceration. The submental and submaxillary glands were somewhat enlarged and were removed. The operation took place on Dec. 21st, 1904.

M.N. 3179. June 3, 1904. Mr. Collier.

SCALP: Epithelioma arising in a Sebaceous Cyst. 81 (01 · 1) : 66 · 1
81 (01 · 1) : 67 · 1

The scalp was the site of a sebaceous cyst which opened on the surface. The cut surface shows that the wall of the cyst has become epitheliomatous, and the tumour tissue is seen as a dense white layer forming the floor, and to a certain extent the lateral wall of the space.

Microscopic examination shows the tumour to consist of a series of epithelial processes in a matrix of fibrous tissue, which is almost entirely free from inflammatory reaction, but is well supplied with blood-vessels. The centre of the epithelial processes shows degeneration.

The patient was a woman aged 42 years, who had had a sebaceous cyst for several years. The cyst had commenced to grow rapidly one year before operation, and had been incised 14 days before admission to the Infirmary. The growth was removed June 3rd, 1904. There was no involvement of the lymphatic glands.

M.N. 3232. Feb. 22, 1904. Mr. Collier.

SKIN OF THE LEG: Sarcoma. 81 (08) : 65
81 (08) : 33

The tumour forms an irregular projecting mass, the outer part of which is extremely vascular, and is infiltrated with extravasated blood. The inner portion of the tumour, which extends only a very short distance below the surface level, is of a cellular character and is somewhat less richly supplied with blood-vessels. The growth has extended laterally immediately under the skin for some distance, and is of the same very vascular type throughout. One or two small nodules may also be seen in the subcutaneous fat.

Microscopic examination showed that the tumour is a very vascular sarcoma.

The patient was a woman aged 49 years. The right leg had been in a condition of pseudo-elephantiasis for 27 years. In Dec., 1904, a small swelling of the skin began to grow and steadily increasel up to the time of operation. On Feb. 22nd, 1904, the growth was excised. Recovery was uneventful. On Aug. 11th, 1905, a second operation was performed for a similar growth, the size of a grape, situated on the outer aspect of the leg in the lower third.

M.N. 3444. March, 1904. Mr. Burgess.

SKIN OF THE HAND: Epithelioma. 81 (07 : 2) : 66 · 1

On the dorsum of the right hand there is a large, flat, fungating mass of epithelioma. The surface has a very irregular form due to characteristic growth, the tumour being partially papillary. The edge of the growth is raised, and projects over the surrounding skin. On the palmar surface the growth can be seen protruding between the thumb, index and middle fingers.

The patient was a man, aged 79 years, with a history of tumour for twelve months, showing rapid growth. The arm was amputated March, 1904.

M.N. 3502. D.B. 4663. Mr. Collier.

SKIN AT ANGLE OF JAW: Melanotic Sarcoma. 81 (02 · 6) : 65 · 5

The specimen consists in an elliptical portion of skin which shows on the surface a considerable number of rounded, pigmented areas, the largest being the size of a pea. Near the surface, in the subcutaneous fat, there is a very black nodule the size of a threepenny-piece.

Microscopically, the tumour area was found rich in pigment, contained in round-celled tissue, with a very scanty matrix.

M.N. 3557. D.B. 1012. Feb. 18, 1890.

LEG: Squamous Epithelioma. 81 (08 · 4) : 66 · 1
97 · 6 : 66 · 1

On the skin covering the posterior inner portion of the leg is a very large oval ulcer which has extended through the soft tissue and almost entirely through the shaft of the tibia. The margins are not much thickened, but are very irregular, and the surface of the skin in the neighbourhood presents a softened and roughened appearance. The floor of the ulcer is composed of rounded and irregular processes of tumour growth.

Microscopically, it is a typical squamous epithelioma. (See skin M.N. 1685—81 : 66·1.)

M.N. 3640. Mr. Thorburn.

SKIN : Sarcoma. 81 (05) : 65 · 3

The specimen shows a rounded, expanding mass of sarcoma which has grown through the skin, forming a shreddy ulcerating tumour excavated in its upper part, and discoloured by hæmorrhages. The cut surfaces of the growth show that in structure it is partly white and homogeneous, partly discoloured by hæmorrhage, and partly made up of cysts with intracystic growth. The external abdominal aponeurosis is firmly adherent, but is not perforated.

Microscopically, the tissue consists of round and spindle cells.

The patient was a man, aged 23 years. The growth had been noticed in the abdominal wall for ten months. He was treated by a "quack," who had applied caustics.

SKIN: CYSTS.

M.N. 1724. D.B. 2770.

SKIN: Sebaceous Cyst. 81 : 67 · 1

The specimen is a cystic tumour of the skin which has been laid open. The contents of the cyst have been removed, and the wall is seen to consist of a thin layer of tissue which is closely applied to the under surface of the skin. The inner lining is fairly smooth, and in some of the pockets are some remains of the contents of the cyst.

SKIN: GENERAL NUTRITIONAL DISEASES.

M.N. 1645. Dr. Leech.

SKIN OF HAND AND FOREARM: Pigmentation due to Addison's Disease. 81 : 83 · 4
81 : 42 · 8

A few irregular bronzed patches are seen on the skin.

M.N. 2899. D.B. 3471. P.M.M. 1895, No. 177. June 19, 1896.
Dr. Judson Bury.

SKIN: Addison's Disease. 81 (03) : 83 · 4
81 (03) : 42 · 8

The pigmented skin is from the back of the neck in a case of Addison's disease. The adrenal glands in this case were both increased in size, hard, and adherent to the surrounding structures.

The patient was a female, aged 13.

CELLULAR TISSUES: INFLAMMATIONS.

M.N. 3195. D.B. 2550.

HAND: Dupuytren's Contraction. 82·1:53
07:24

The specimen is a preparation of the left hand, a dissection of which has been made to expose the processes of palmar fascia extending along the subcutaneous tissues of the fingers; the contraction of these has given rise to the characteristic flexion of the fingers. Glass rods have been placed under the fascia and its processes.

M.N. 3154. Mr. Wright.

HAND: Dupuytren's Contraction. 82·1:53
07:24

The little finger is half-flexed and held in this position by a strand of fibrous tissue which passes from the palmar fascia to the fascia at the sides of the first and second phalanges of the finger.

The patient was a man aged 50 years, whose arm was amputated for a fascial sarcoma.

CELLULAR TISSUES: BENIGN TUMOURS.

M.N. 852. Mr. Heath.

FOOT: Fibroma. 82 (09) : 63 · 2

On the outer half of the right foot may be seen a tumour situated under the 3rd metatarsal bone, of a rounded, elongated form and dense fibrous structure; it possesses a well-defined capsule.

On microscopic examination it proved to be a hard fibroma.

M.N. 1637. D.B. 302. May 6, 1886. Mr. Southam.

TUMOUR OF THE NECK. 82 (03) : 63 · 5

The specimen consists of a large rounded tumour, arising in the substance of the neck of a child, aged 3. The greater part of this tumour is occupied by a smooth-walled, slightly loculated cyst. The base of the tumour is composed of solid tissue which, on microscopic examination, proved to be a myxoma.

M.N. 1694. Mr. Bradley.

TISSUES OF THE NECK: Myxo-Fibro-Lipoma. 82 (03) : 63
82 (03) : 63 · 2
82 (03) : 63 · 5

The tumour has a distinctly lobulated form, and the colour of a lipoma. On the cut surface a large amount of matrix is seen, and the areas of tumour growth are in many instances of a pale grey appearance, suggesting myxomatous degeneration.

The microscopic investigation shows that the tumour is a myxo-fibro-lipoma.

M.N. 1695. D.B. 257. March 6, 1886.

SKIN: Lipoma. 82 : 63 · 1

A globular polypoid lipoma, arising from the subcutaneous tissue, projects on the surface of the skin.

M.N. 1696. June 19, 1883. Mr. Jones.

LIPOMA. 82 : 63 · 1

The tumour consists of a group of lobules of various sizes, each with a rounded outline and smooth surface, and the characteristic yellow colour of a fatty tumour.

M.N. 1698. D.B. 2793. Mr. Southam.

LIPOMA. 82 : 63 · 1

The tumour, which is composed of fatty tissue, has a flat, rounded, much lobulated form, and a definite capsule.

M.N. 1699. D.B. 1281. July 7, 1891.

LIPOMA. 82 : 63 · 1

The tumour has the shape of a discoid mass, the edges of which are deeply indented, giving the characteristic lobulation of a circumscribed fatty tumour. It is yellow in colour and has a fairly smooth surface.

M.N. 1701. D.B. 2752.

LIPOMA. 82 : 63 · 1 (63 · 2) (64 · 7)

The tumour is a flat form of lipoma. One side is thrown into numerous lobules, each with the smooth surface and rounded outline characteristic of fatty tumour.

Microscopic examination shows that the tumour contains a large amount of fibrous as well as fatty tissue; and in the fibrous tissue are numerous tubules lined with cubical epithelium.

M.N. 1702. D.B. 2750.

LIPOMA. 82 : 63 · 1

The specimen is a flat rounded tumour, the edge of which is markedly lobulated. The tumour is definitely encapsuled, and it has the characteristic yellow colour of fatty tissue.

M.N. 1703. Mr. Jones.

LIPOMA. 82 : 63 · 1

The surface of the tumour is generally uniform and smooth, but slightly lobulated inferiorly; the section shows a few delicate fibrous bands.

M.N. 2707. D.B. 1180. Dec. 9, 1890. Dr. Kelynack.

LIPOMA. 82 : 63 · 1

The specimen is a very large, lobulated, flattened, fibro-lipoma. It was removed from the back of an old man (aged 86) and weighed $8\frac{1}{4}$ lbs.

M.N. 3030. July 23, 1902. Mr. Southam.

LIPOMA. 82 (08 · 1) : 63 · 1

The specimen is one half of a large lipomatous tumour removed by operation. The surface is characteristically lobulated, and the section shows the yellow, opaque appearance of fat.

The patient was a woman aged 30 years. The tumour was removed from the buttock July 23rd, 1902.

M.N. 3096. Mr. Thorburn.

ORBIT: Naevus. 82 (02 · 3) : 64 · 3

The nævus was removed together with the entire orbital contents. Sections have been made through the eyeball and through the growth to show its structure. The eyeball is flattened, but this is due to collapse after removal. The tumour, on section, is seen to be filled with dark clot lying in spaces separated by fibrous tissue. In the lower part of the growth there is a considerable amount of organized fibrous tissue.

The patient was a girl, aged 24 years. The swelling had been noticed since infancy. There had been gradual loss of sight for six months previous to operation. There had been four previous operations by electrolysis with little improvement. Marked proptosis was present. No pulsation could be detected in the tumour. The whole of the orbital contents were removed after excising a portion of the outer bony wall of the orbit. Recovery was uneventful.

M.N. 3182. Mr. Wright.

LIPOMA. 82 (08 · 2) : 63 · 1

The specimen consists of a portion of a lipoma and a small area of the skin overlying it. The section shows that the tumour consists of lobules of fat varying in size, with a considerable amount of fibrous stroma. In the centre of the tumour are several nodules of somewhat denser structure due to increase in the fibrous elements of the tissue.

M.N. 3229. D.B. 4419. May 18, 1904. Mr. Wright.

INTERMUSCULAR LIPOMA. 82 (08 · 4) : 63 · 1

The tumour is a lobulated encapsuled mass of yellow fatty tissue, and on the outer surface can be seen the delicate tendon of the plantaris muscle.

Microscopic examination showed the tumour to be a fibro-lipoma.

The patient was a girl aged 20 years, and she had noticed the tumour for 3 years. It was situated beneath and on each side of the tendo Achilles, just above the ankle, and part of it surrounded the plantaris tendon. The tumour was removed May 18th, 1904.

M.N. 3404. D.B. 2415. Feb. 16, 1891. Mr. Jones.

FIBROMA OF THE KNEE. 82 (08 · 3) : 63 · 2

The specimen is a large, oblong, and rounded tumour mass. At one end a large cavity has formed from myxomatous softening. The structure of the tumour is essentially that of a fibroma. In the midst of the mass a strand of silvery tendon-like tissue is seen passing through the substance, suggesting that the tumour growth had originated in this tissue.

Microscopically, the tumour is a fibroma, which shows a large amount of myxomatous degeneration.

CELLULAR TISSUES: MALIGNANT TUMOURS.

M.N. 884.

FOREARM: Sarcoma (Round and Spindle-celled). 82 (06·4) : 65·3

The preparation includes the tumour, with superjacent skin, and upper end of the ulna. A large ovoid mass about the size of a cocoanut, definitely circumscribed and encapsuled, intervenes between the skin and the bone. The surface of the growth is generally uniform, but in parts is is lobulated. An incision made in the posterior part of the mass shows its substance to consist mainly of uniform, but slightly granular, material divided into lobes by strands of dense white fibrous tissue. The main mass itself shows no structural features, but here and there the section of a cut blood-vessel with walls of extreme thinness is seen.

Microscopic examination reveals round and spindle cells, with embryonic blood-vessels and more fully-formed fibrous tissue. The growth, which apparently originated from the intermuscular fascia, does not involve the ulna or its periosteal covering. The skin has given way under the pressure of the growing mass, and at the most prominent part of the latter has ulcerated. The growth in consequence protrudes beyond the level of the skin and appears superficially as a circular fungoid projection of a blackish colour. The colour is due to ulceration and hæmorrhagic changes.

The subject from whom the preparation was removed, was a woman who in all other respects was healthy. An exact history was not obtainable, but apparently the growth had existed for some time without showing any marked increase, when it suddenly commenced to grow with comparative rapidity. The patient consulted one of the "quacks" of the district who applied some escharotic ointment to the skin over the growing mass. This led to ulceration of the skin, and subsequently to the fungoid projection. Hæmorrhage resulted, from which the woman died.

M.N. 886. D.B. 104.

HAND: Sarcoma. 82 (07) : 65 · 3

A large fungating mass of new formation is situated mainly upon the palmar aspect and radial side of the hand, but extends also over the dorsal surface of the 1st phalanx of the thumb. The growth, which has a constricted, basal attachment, presents a very irregular, free surface, of lobulated character; the most prominent parts showing shreddy, ulcerated surfaces. These are separated by tracts of firmer tissue, with smooth, uniform surfaces, and continuous with the attached portion of the growth. Injection shows the growth to be fairly vascular.

On microscopic examination the growth is seen to be a sarcoma, consisting of round and spindle cells.

M.N. 887.

HAND: Sarcoma. 82 (06 · 5) : 65 · 2

The tumour is the size of a tangerine orange, and is situated on the ulnar border of the forearm, wrist and hand. The cut surface has a dense, fasciculated character. The structure is that of a spindle-celled sarcoma. There are some large cells, oval in shape, with acidophil cell substance, amongst the strands of spindle cells.

M.N. 888. D.B. 1147. Feb., 1887. Mr. Jones.

HAND: Sarcoma. 82 (07) : 65 · 2

This large, sarcomatous tumour, springs from the region of the base of the thumb in the right hand. It has formed a rounded mass the size of a cocoa nut. The skin covering it is thickened and unbroken. The surface of section shows that the tumour is composed of soft, friable tissue, which in the centre is very much broken up and disintegrated. Around the periphery there are isolated areas of tissue which have not been disorganised.

Microscopic examination of the tumour shows that it is a spindle-celled sarcoma.

M.N. 935. Oct. 1, 1887. Mr. Southam.

LEG and ANKLE: Sarcoma. 82 (08) : 65 · 2

On the inner side of the ankle, and extending for some way above it, is a fusiform tumour, which has grown through the skin, and formed a fungating mass projecting for a considerable distance beyond the level of the normal surface. The surface of section shows that the tissue of the tumour is arranged in rounded loculi; each defined area being of a cellular structure. At the upper part of the tumour there is an area of hæmorrhage.

Microscopic examination of the tissue reveals the structure of a spindle-celled sarcoma.

M.N. 940.

LEFT FOOT: Sarcoma. 82 (09) : 65 · 3

The foot is injected and shows a large, fungating, irregular growth on the dorsum and inner aspect of the foot, which presents a very vascular appearance and in parts is ulcerated.

Microscopically, the tumour shows round and spindle cells mixed with numerous embryonic blood-vessels.. On the fibular side a small triangular window has been made and the soft parts dissected down to the bone; this dissection showed that the growth did not affect the bones.

M.N. 1693. D.B. 844. April 7th, 1888. Prof. Young.

CELLULAR TISSUES OF THE NECK: Myxo-Chondro-Sarcoma. 82 (03) : 65 · 2 (63 · 3) (63 · 5)

The tumour forms an irregularly rounded mass enclosed in a fairly definite capsule. In the cut surface it is seen to be composed of cartilage and cellular tissue.

Microscopically it shows the structures of spindle-celled sarcoma, hyaline chondroma, and myxoma.

M.N. 1728. D.B. 1131. July, 1890.

PERILARYNGEAL TISSUES: Round-celled Sarcoma. 82 · (03) : 65 · 1

To the right of the larynx, and springing from its upper part, is a large, rounded, tumour mass. It has a definite outline, and its finer structure is very uniform in character, and has an opaque, fleshy appearance.

Microscopic section shows that the tumour is composed of large, round cells, with well marked nuclei and a correspondingly large cell body. These cells lie in a fine reticulum of connective tissue. Some of them are isolated, and others in groups of two or three. Still larger groups occur here and there. A number of the cells are in a state of active division.

M.N. 2978. Mr. Collier.

INTERMUSCULAR SARCOMA. 82 (08 · 3) : 65 · 2

The specimen consists in a segment of the leg about four inches in length, taken at the level of the popiteal space. The diameter is very much increased by the presence of a growth situated behind the tibia and fibula. On the upper aspect can be seen the articular surface of the tibia, the cartilage of which shows some roughening and congestion. Behind the bones is situated a more or less rounded mass with an outer zone of dense cellular growing tissue of an opaque yellow colour, and centrally an area of more transparent myxomatous tissue, white in colour, and showing areas of œdema, hæmorrhage, and breaking down (myxomatous degeneration). The tumour seems also to have extended along the outer surface of the tibia.

Microscopically, the specimen is a spindle-celled sarcoma.

M.N. 3034. Jan. 26, 1904. Mr. Platt.

FOREARM: Sarcoma. 82 · 1 (06 · 4) : 65 · 1

A transverse section has been made showing a sarcoma lying beneath the muscle and spreading along the intermuscular fascia. The bones are surrounded, but are not involved. The muscles are extremely compressed, but are not infiltrated. The growth extended along the forearm, a distance of

three inches. The tumour tissue has a soft fleshy appearance without any evidence of fibrous matrix.

Microscopic examination shows that the tumour is an angeio-sarcoma.

The patient was a female, aged 19 years. A swelling of the forearm had been noticed for two years and followed a blow. A sarcoma was removed from the dorsal surface of the forearm Nov. 19, 1903, but recurrence followed in a few weeks. Amputation of the forearm, just below the elbow, was performed.

M.N. 3105. May 1, 1902. Mr. Platt.

PECTORAL FASCIA: Myxo-Sarcoma. 82·1:65
82·1:42·6

The flattened, rounded tumour was removed from beneath the pectoralis major muscle. It is of firm consistence and homogeneous on section.

Microscopically, it was a myxo-sarcoma.

The patient was a male, aged 10 months. The tumour had been noticed for two and a half months.

M.N. 3145. Mr. Collier.

TISSUES OF BUTTOCK: Myxo-Sarcoma. 82(08·2):65·3(42·6)

The specimen shows a wedge-shaped portion of a rounded, fairly translucent tumour. It has a definite capsule, to the outer surface of which muscular fibres adhere. The cut surface shows a delicate, loose texture, the irregular spaces of which were filled with clear fluid.

The patient was a woman aged 52 years, who had noticed a slight swelling in the buttock 4 years previously. Growth had been more rapid during the last 6 months and the tumour had been more painful.

M.N. 3150. May 2, 1902. Mr. Montgomery.

CELLULAR TISSUES OF THE KNEE: Sarcoma. 82(08·3):65·3

The specimen is half of a sarcomatous tumour, removed by operation, with a portion of the overlying skin, adherent to, but not involved in, it. The tumour is well-defined and somewhat lobulated. The cut surface shows a fasciculated structure, fibromatous in appearance; though in the lower part it is more

uniform and cellular in character, and in this area hæmorrhage has taken place. The growth was of one year's duration and appeared to spring from the deep intermuscular fascia, and to have insinuated itself between the hamstring muscles near the popliteal space; but the muscles themselves were not involved. It was removed May 2, 1902.

The patient was a woman aged 51 years.

M.N. 3203. D.B. 4425. Mr. Thorburn.

SUBCUTANEOUS TISSUE OF THE UMBILICAL REGION. 82 (05 · 2) : 65 · 5

The specimen consists of two nodules of melanotic sarcoma growing in the subcutaneous fat in the region of the umbilicus. The larger nodule has been bisected, and is seen situated immediately under the skin and is of a slightly lobulated form. It is composed of deeply pigmented tissue of a brownish-black colour, but in one or two areas the tissue is considerably paler. At the side of the specimen the second smaller nodule can be seen embedded in the fat. The skin is not involved in the growth.

The patient was a woman, aged 44 years, who had had melanotic sarcoma of the glands removed from the neck eleven months previously. Within four months of this operation a small nodule commenced to grow beneath the skin near the umbilicus. There were no other tumours present.

M.N. 3217. D.B. 4432. Feb. 16, 1903. Mr. Platt.

MUSCLES OF THE THIGH: Fibro-Sarcoma. 82 (08 · 2) : 65 · 2 (63 · 2)

This large intermuscular sarcoma has a rounded oblong shape. The fibrous capsule is fairly well defined, and attached to it are a number of pale strands of striped muscular tissue. On section the tumour is seen to be composed of three or four lobules. The upper one consists of a mixture of soft cellular and myxomatous tissue. Immediately beneath this is a lobule somewhat more fibrous in character; the centre of it, however, shows a tendency to myxomatous change, while the outer portion is of a more cellular character.

Microscopic examination shows the tumour to consist of fusiform cells with large oval nuclei.

The patient was a woman, aged 48 years. The tumour had been growing for six months. It arose from the intermuscular fascia of the thigh and involved the vastus externus muscle. The tumour was removed Feb. 16, 1903.

M.N. 3407. D.B. 2146. Mr. Jones.

SKIN OVER ILIUM: Spindle-celled Sarcoma. 82 (08 · 1) : 65 · 2

This sarcoma of the skin grew as a group of nodules projecting somewhat above the surface level. The surface is hard and dry but not ulcerated. The tumour is composed of soft tissue of uniform texture, and the growth extends to the depth of about half an inch.

Microscopically the structure is that of a spindle-celled sarcoma, in the midst of which tissue there are a few small cysts lined by cubical epithelium and containing debris.

M.N. 3453.

FASCIAL SARCOMA OF FOREARM. 82 · 1 (06 · 4) : 65 · 2

The specimen consists of the lower third of the radius and ulna, with some of the attached soft parts. On the anterior aspect, and to the radial side of the forearm, there is a rounded lobulated tumour definitely encapsuled, and showing a fasciculated fibro-cellular structure on its surface of section.

Microscopic examination shows the tumour to be a spindle-celled sarcoma.

M.N. 3512. D.B. 4431. Jan. 20, 1902. Mr. Collier.

THIGH: Intermuscular Sarcoma. 82 · 1 (08 · 2) : 65 · 3

The specimen includes the lower half of the femur. Surrounding the bone, in its lower one-third, and for about half its circumference, is a sarcomatous tumour showing areas of hæmorrhage and myxomatous softening. The tumour had originated in the intermuscular tissue and does not directly involve the bone or periosteum.

Microscopical examination shows that the tumour is composed of cells varying greatly in size and shape, and exhibiting no particular arrangement. Conspicuous in the tissue are cells with gigantic nuclei.

The patient was a woman aged 53 years. The tumour had been growing for four months. Amputation was performed Jan. 20th, 1902.

M.N. 3724. D.B. 4130. Aug. 23, 1903. Mr. Collier.

CELLULAR TISSUES OF THIGH: Intermuscular Sarcoma. 82 (08 · 2) 65 : 3

The tumour forms an ovoid fleshy mass with a well defined outline. The surface shows that the structure is essentially lobulated, and the lobules of white opaque tissue are separated by strands of connective tissue.

The microscopic structure is that of a mixed-celled sarcoma.

CELLULAR TISSUES: CYSTS.

M.N. 3394. D.B. 1991. Apr. 18, 1893. Dr. J. Brown.

CYSTIC TUMOURS OF THE AXILLA. 82 (04 · 5) : 67 · 3

The tumour has been bisected and is seen to consist of a series of smooth-walled cysts of various sizes, the contents of which are of a colloid nature.

Microscopically, there is a large amount of matrix of fibrous tissue, and the cystic spaces are lined by squamous epithelium.

M.N. 3631. D.B. 3774. Mr. Wright.

SKIN AND SUBCUTANEOUS TISSUE OVER SACRUM: Cystoma. 82 (05 · 8) : 67 · 5

The specimen shows a multiple cystic tumour which formed in the sacral region. The cysts are smooth-walled, and contain colloid material.

Microscopically, the tissue shows spaces lined by columnar epithelium, enclosed in a matrix of fibrous tissue.

The patient, a male, aged 46, gave a history of pain in the region of the sacrum for twelve months. For three months there had been frequency and difficulty in micturition and marked constipation. When the patient came into the Infirmary he suffered from distension of the bladder, and the urine was alkaline and contained pus. The growth was situated between the rectum and the sacrum. It was partially removed. Before he died the patient developed paralysis of the legs.

MUSCLE AND TENDON: INFLAMMATION.

M.N. 709. Prof. Young.

VERTEBRAE, RIBS, STERNUM, CLAVICLE, SCAPULA, PELVIS: (Myositis Ossificans) Scoliosis. 83:53 (42·9) 93:24

The 7th cervical and all the dorsal and lumbar vertebræ, all the ribs except the second, the sternum, and some of the costal cartilages, the left clavicle and both scapulæ, the pelvis have been macerated and varnished.

On the dorsal surface are seen plates of osseous tissue, chiefly arranged as two bands running on each side of the vertebral column, that on the left side being the larger of the two. A transverse band of similar tissue runs from the posterior extremity of the iliac crest obliquely upwards till it is overlapped by another band of a like character, which comes from the inferior angle of the left scapula. The scapula is also connected with the main mass by two transverse irregular bands of bone. From the left clavicle springs a long stellate process of bony tissue. There is well marked lateral curvature of the spine.

M.N. 3055. May 14, 1904. Mr. Collier.

PALM OF HAND: Teno-Synovitis. 83·2:55·1 83·2:28·1

The enlarged tendon sheath has been turned inside out to show the lining, which is covered with fibrinous tags, some of which are pedunculated and nearly separated from the wall. Numerous small, fibrinous, melon-seed bodies, which lay free in the sheath, are also shown.

The patient was a female aged 22 years. For 9 months a swelling had been noticed in the palm of the hand, extending above the wrist. The swelling was painless but had caused weakness of the hand. The palmar bursa was dissected out with the enlarged tendon sheath of the flexor longus pollicis muscle.

MUSCLES AND TENDONS: BENIGN TUMOURS.

M.N. 1712.

FINGER: Fibroma. 83·2 (07·4) : 63·2

The specimen is a vertical section of a finger, showing an irregular, nodulated tumour in connection with the flexor tendons opposite the second phalanx. The tumour is about the size of a large walnut, has a firm consistency, and is distinctly circumscribed by a thin capsule. The skin over it is atrophied, but not otherwise involved. On section the tumour is whitish in colour, and at its lower part there is the watered-silk appearance.

Microscopically, the tumour is a fibroma.

MUSCLES: MALIGNANT TUMOUR.

M.N. 2262. Mr. Stanmore Bishop.

MUSCLE: Sarcoma. 83 : 65 · 1

The tumour tissue and the muscle are intimately united with each other.

Microscopic section shows that the growth is a round-celled sarcoma of a very loose texture, invading the muscle, and separating the strands from each other.

M.N. 3153.

LEG: Fascial Sarcoma. 83 (08) : 65 · 3

The specimen is a part of a leg amputated for sarcoma. A vertical section has been made to show the sarcomatous deposit lying in and between the muscles. The deepest mass is adherent to, but does not involve, the periosteum. The largest is $2\frac{1}{2}$ inches in diameter, and is adherent to the skin. The section shows cysts due to myxomatous degeneration. There are other numerous scattered masses of a uniform, greyish-white colour.

M.N. 3196. D.B. 4417. Feb. 10, 1904. Mr. Collier.

RECTUS MUSCLE: Fibro-Sarcoma. 83 (05) : 65 · 6

A segment of the rectus abdominis muscle was the site of a fibro-sarcoma, and the muscle tissue can be seen attached to both sides of the tumour. The cut surface shows the fibro-cellular character of the tissue. The tumour has a very definite capsule, and has not invaded the peritoneal covering.

Microscopically the tumour is composed of spindle-shaped cells which have only a slight tendency to form fasciculi. Scattered amongst this tissue may be seen the remains of the muscle fibres, some of which are apparently being invaded by leucocytes.

The patient was a woman aged 38 years. In 1902 she had a very difficult labour. In July, 1903, she noticed accidentally a tumour growing in the right rectus abdominis muscle, and this gradually increased in size up to the time of the operation Feb. 10th, 1904.

M.N. 3445. D.B. 3905. May 26, 1901. Mr. Collier.

RECTUS: Sarcoma. 83:65·3

The ovoid tumour mass has been excised from the rectus muscle. On the cut surface the tissue is seen to be pale yellow in colour, and somewhat opaque, the mass being divided up into small rounded lobules by thin bands of connective tissue.

Microscopic section shows that the tumour has the variegated structure of a mixed-celled sarcoma. In some areas the cells are round, in others they are spindle-shaped, containing amongst them large cells with very prominent lobulated nuclei; elsewhere necrosis is found. Some of the necrosed elements suggest strands of muscle fibres, but no striation can be made out. In the necrosed areas there has been marked fragmentation of the nuclei; small masses of chromatin substance are scattered throughout.

M.N. 3709. Mr. Stanmore Bishop.

MUSCLE: Sarcoma. 83:65·3

The specimen consists of a portion of the quadratus femoris muscle, in the midst of which a large rounded cyst has been developed. The wall of this cyst has a trabecular form, with a smooth, but uneven, surface; the substance of the wall is partly muscular and partly sarcomatous.

Microscopic section shows that the sarcoma is of the mixed-cell type.

MUSCLE: CYSTS.

M.N. 981.

BURSAL CYSTIN MUSCLE. 83:67·1

The walls of the cyst are moderately thick, and the interior surface is quite smooth.

M.N. 3415. D.B. 4590. P.M.S. 449. June 6, 1905. Mr. Southam.

DIAPHRAGM: Malignant Cystoma (Secondary). 83·3:67·5

On the peritoneal aspect of the diaphragm there is an irregularly interrupted layer of tumour tissue covering the whole of that surface. It is white and dense, and had formed adhesions to neighbouring tissue. A similar, but more nodular, layer occupies the greater part of the thoracic aspect, and here the whole of the muscular tissue of the diaphragm has been replaced by the tumour tissue. The primary growth was in the left ovary. (See ovary M.N. 3416—65:67·5, and peritoneum M.N. 3438—38:67·5.)

BURSA: LOOSE BODIES.

M.N. 973. D.B. 789. Prof. YOUNG.

LOOSE BODIES FROM A BURSA. 84:28·1

The specimen shows a collection of loose bodies from the cavity of an adventitious bursa which developed between the obturator externus, and adductor magnus. In a number of these bodies a certain amount of calcification has taken place.

BURSA: INFLAMMATION.

M.N. 965.

PREPATELLAR BURSITIS. 84 : 55 · 1

The structure is enormously enlarged. The walls are thickened by the growth of white fibrous tissue, and by dilatation of the cavity. The inner surface of the wall is rough and irregular, and there are some masses of inflammatory exudate lodged in the cavity.

M.N. 967. D.B. 753. Mr. Stocks.

PREPATELLAR BURSITIS. 84 : 55 · 1

The structure is greatly enlarged. The walls are much thickened by the growth of fibrous tissue, and the inner lining of the cavity is replaced by a felted, roughened layer, due to the inflammation. The bursa had the character of a semi-solid tumour.

M.N. 968.

PREPATELLAR BURSITIS. 84 : 55 · 1

There has been an extensive overgrowth of connective tissue from chronic inflammation of the walls of the bursa. This cavity is almost completely obliterated.

M.N. 969. Mr. Lund.

PREPATELLAR BURSITIS. 84 : 54 · 1

The prepatellar bursa is enlarged and dilated by chronic inflammation.

M.N. 982.

PREPATELLAR BURSITIS. 84 : 54 · 1
84 : 55 · 1

The specimen shows a very much enlarged prepatellar bursa with a small portion of the superficial skin. The wall of the bursa is much thickened and fibrous, and is lined by a deposit of inflammatory exudate.

M.N. 984.

PREPATELLAR BURSITIS. 84 : 55 · 1

The prepatellar bursa has very much thickened fibrous walls. The cavity is not much enlarged. The inner wall is smooth.

M.N. 2280. Mr. Stanmore Bishop.

PREPATELLAR BURSITIS. 82 (08 · 3) : 54 · 2

The bursa is much dilated but the wall has been only slightly thickened. The cavity is filled with solid inspissated material (fibrin) produced by the inflammatory process. This material assumes a laminated formation, and has a brownish-yellow colour.

M.N. 2901. D.B. 3672. April 26, 1898. Dr. Richmond.

ADVENTITIOUS BURSA. 84 : 55 · 1

The specimen is an intra-muscular cyst from the triceps muscle. The walls are thickened and the inner surface roughened by chronic inflammation.

M.N. 3011. Mr. Wright.

PREPATELLAR BURSITIS. 84 : 55 · 1

The cavity of the bursa has been greatly enlarged and has subsequently been filled almost completely with fibrous tissue.

Microscopic section shows that the tumour is composed chiefly of white fibrous tissue, but here and there are areas where it is cellular, and in the form of granulation tissue, showing recently formed and thin-walled blood-vessels, fibroblasts, neutrophil leucocytes, and clumps of lymphocytes. Some areas of the fibrous tissue are almost completely devoid of nuclei, and have the appearance of necrosis.

M.N. 3038. Feb. 26, 1904. Mr. Thorburn.

BURSITIS. 84 : 55 · 1
84 : 33

The specimen consists of an enlarged subgluteal bursa removed by operation. The wall is irregularly thickened and part of it has been removed to show the interior, where a little fibrinous clot can be seen adherent to the surface. The bursa contained brownish, serous fluid.

The patient was a man, aged 60 years, who had noticed a painless enlargement of the bursa for three months, interfering somewhat with the movements of the hip-joint. The cause of the enlargement was obscure. The operation took place Feb. 26, 1904.

M.N. 3057. Feb. 21, 1902. Mr. Wright.

PREPATELLAR BURSITIS. 84 : 55 · 1
84 : 33

The prepatellar bursa has been enlarged by chronic inflammation. The bursa has been laid open. Its wall is thickened, and successive hæmorrhages have taken place into the sac, as indicated by the several layers of partially discoloured clot.

The patient was a female aged 29 years. The bursa had been enlarging for 4 years. Removed by operation Feb. 21st, 1902.

M.N. 3092.

PREPATELLAR BURSITIS. 84 : 54 · 2

The specimen is the enlarged bursa patellæ removed by operation. The outer surface of the bursa is roughened. An opening has been made to show the interior, which is almost completely filled with flaky masses of fibrinous exudate.

M.N. 3141. Dec. 5, 1902. Mr. Wright.

PREPATELLAR BURSITIS. 84 : 55 · 1
84 : 33

The bursa is enlarged and its walls are much thickened. The sac contained inflammatory exudate, but hæmorrhage into it had also taken place.

The patient was a woman aged 23 years, and there was a history of enlargement during six months. The bursa was removed by operation.

CARTILAGE: MECHANICAL LESIONS.

M.N. 3023. April 25, 1902. Mr. Wright.

DISPLACED SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The free internal edge of the cartilage was doubled outwards over the rest of the cartilage.

The patient was a male, aged 30 years. Sixteen months previously, following a kick, the knee became swollen and fixed in a flexed position. Subsequent locking of the joint occurred eight times, followed by synovitis, the swelling of the joint persisting about a week.

M.N. 3052A. Mr. Wright.

LOOSE SEMILUNAR CARTILAGE 85 (97 · 4) : 23

The cartilage was removed in two pieces.

M.N. 3063. Mr. Wright.

LOOSE SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The cartilage has been removed in 6 pieces. It was split horizontally into two. The separate portions have assumed a flat, rounded appearance.

M.N. 3073. Oct. 23, 1900. Mr. Wright.

LOOSE INTERNAL SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The specimen shows the portions of cartilage removed. Some of these present irregular processes of inflammatory tissue adhering to the edge of the cartilage. Operation, Oct. 23, 1900.

M.N. 3100. Aug. 6, 1901. Mr. Wright.

LOOSE SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The loose, semilunar cartilage was removed in three pieces. The cartilage was found split into two portions horizontally, the upper half being the larger. The capsule of the joint over the cartilage was much thickened.

The patient was a man aged 23 years who had twisted his knee whilst playing football 3 years previously. There were three subsequent attacks of locking of the joint, followed by effusion. Operation August 6, 1901.

M.N. 3137. Mr. Wright.

LOOSE SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The semilunar cartilage of the knee-joint has been divided horizontally into three fragments, which adhere to the remaining part, but are more or less bent inwards towards the centre of the joint. The edges of the fragments are discoloured from hæmorrhage.

M.N. 3446. Aug., 1899. Mr. Wright.

DISPLACED INTERNAL SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The displaced cartilage was removed in three pieces. The structure is very fibrous in appearance, and the surface is markedly roughened and irregular. Operation, Aug., 1899.

M.N. 3717. Mr. Whitehead.

DISPLACED SEMILUNAR CARTILAGE. 85 (97 · 4) : 23

The cartilage has been partially divided into two, and the inner portion projects almost at a right angle with the outer.

SYNOVIAL MEMBRANE: MECHANICAL LESIONS INCLUDING LOOSE BODIES.

M.N. 971.

LOOSE BODIES FROM A JOINT (Knee?). 89 (97 · 4) : 28 · 1

The specimen consists of four large, irregular, somewhat flattened bodies, one of which is distinctly tuberculated and calcified. They are apparently very hard.

M.N. 974.

MELON-SEED BODIES FROM A JOINT CAVITY. 89 : 28 · 1

M.N. 975.

LOOSE BODIES FROM A JOINT CAVITY. 89 : 28 · 1

M.N. 2999. Feb. 21, 1902. Mr. Wright.

LOOSE BODY IN THE KNEE-JOINT. 89 (97 · 4) : 28 · 1
97 · 3 : 21 · 3

The specimen consists of a loose body removed from the outer side of the right knee-joint. It has been split vertically to show its structure, which is that of cancellous bone covered with cartilage. The loose body is a portion of the external condyle of the femur, torn off in a twist of the joint, which had occurred three months previously. The external lateral ligament did not yield, but tore away the bone under the strain.

The patient was a man, aged 47 years.

M.N. 3000. Mr. Wright.

KNEE-JOINT: Foreign Body. 89 (97 · 4) : 28 · 1

The specimen shows the lipomatous enlargement of a segment of the synovial fringe of knee-joint.

M.N. 3186. Jan. 4, 1905. Mr. Collier.

FOREIGN BODY IN KNEE-JOINT. 89 (97 · 4) : 28 · 1

The surface is smooth and the structure is hard and cartilaginous.

The patient was a man aged 62 years. The condition followed a blow on the inner side of the knee 2 years previously. Since that time he had suffered from periodic attacks of severe pain in the joint on walking, followed by a swelling of the joint, and he had been able to locate a foreign body moving in the joint. The foreign body was easily felt after manipulation of the joint. On Jan. 4th, 1905, an incision was made into the joint on the inner side, and the foreign bodies were removed. There was evidence of osteo-arthritis of the joint. Recovery was uneventful.

M.N. 3228. D.B. 4395. Mr. Wright.

KNEE-JOINT: Loose Body. 89 (97 · 4) : 28 · 1

The specimen consists of a small lozenge-shaped mass, the greater part of which is composed of a yellowish cartilaginous-looking tissue. The remainder, which is more opaque and fibrous, forms a layer on the surface.

The patient was a man, aged 57 years. The condition followed a twist of the joint eight months previously. There was frequent "locking" of the joint, often two or three times daily. The foreign body could be felt on the inner side of the joint. It was successfully removed by operation.

M.N. 3284. D.B. 4389.

LOOSE BODY IN THE KNEE-JOINT. 89 (97 · 4) : 28 · 1

The body is a flat discoid structure with very irregular margins and surface covered with serous endothelium, and composed of a dense connective tissue.

SYNOVIAL MEMBRANE: INFLAMMATION.

M.N. 3017. Aug. 2, 1902. Mr. Wright.

KNEE-JOINT: Thickened Synovial Fringe. 89 (97 · 4) : 55 · 1

The specimen shows thickening of a synovial fringe of a fibrous character, and having a broad attachment to the synovial membrane.

The patient was a girl aged 24 years, who suffered from pain and swelling of the knee-joint of 12 months' duration. There was considerable creaking in the joint. The knee-joint was opened by an incision on the inner side, and the thickened fringe was removed. Recovery from the operation was uninterrupted. Operation August 2nd, 1902.

OSSEOUS SYSTEM.

z36

NORMAL BONES.

M.N. 674.

RIB AND COSTAL CARTILAGE of a Healthy Child (aged 1 year). 95 : —

M.N. 2620. Oct. 8, 1883. Mr. Wright.

FEMUR (upper end) Normal. 97 · 3 : —

Post-mortem excision. Normal history: from a healthy boy.

BONES: GENERAL NUTRITIONAL DISEASES.

M.N. 697.

VERTEBRAE, RIBS, PELVIS, FEMUR: Osteo-Malacia. 90 : 86 · 2
99 : 86 · 2
90 : 24

The 6th and 7th cervical, dorsal and lumbar vertebræ, pelvis and upper third of both femora.

The antero-posterior curves of the spine are slightly exaggerated, and there is a slight lateral curvature from rotation of the bodies in the lumbar region to the right, and in the dorsal to the left. The spinous processes exhibit hardly any curve. The sacrum is depressed considerably downwards and forwards into the pelvis, dragging by the ligaments the upper part of the alæ of the ilia, which are folded forwards over the remainder of the bones. The sacrum is acutely bent upon itself so that the coccyx lies in a horizontal plane, and its tip is almost in the plane of the brim of the pelvis. Owing to the bending of the pubes and ischia, the tuberosities of the ischia and the acetabula are approximated. The acetabula look more forward than normal. The ileo-pectineal eminences are raised. The upper part of the pubic arch has not given, and is almost shut off from the pelvic outlet by approximation of the middle part of the arch. The femora are adducted, and the sections show the compact tissue of the shaft.

M.N. 704.

VERTEBRAE, RIBS, STERNUM, PELVIS, CLAVICLE, FEMUR: Osteo-Malacia. 90 : 86 · 2
90 : 24

The 6th and 7th cervical, all the dorsal and lumbar vertebræ, the sacrum, coccyx, the two ossa innominata, the 9th and the 11th right ribs, and the 1st 9th left ribs, the intercostal cartilages, and sternum, the upper end of the right femur.

The lower dorsal and lumbar regions present a marked lateral curve, convex to the left, and somewhat backwards, with great rotation of the vertebræ, most marked in the 1st and 2nd lumbar, the depth of whose bodies

is much diminished on the right. The line of the spinous processes is much less curved. The sternum is pushed forwards, and depressed, so that the costal cartilages lie in the line joining the anterior superior spines of the ilia. The antero-posterior diameter of the chest is increased, and the lateral diminished. The ribs are variously curved, and many of them present nodes, the result of healed fractures, while those on the right side have a concavity about the middle of their length. The 11th right rib is broken. The pelvis presents a combination of the oblique and rostrated types. The promontory of the sacrum is rotated forwards into the pelvis, and faces the right ileo-pectineal eminence. The lower two pieces of the sacrum and the coccyx are bent sharply forwards. The crest of the right ilium is curved inwards, and the iliac fossa is very concave, but the ala is almost vertical; the left ala is fairly normal. The right pubis and ischium are atrophied and the distance from the ileo-pectineal eminence to the tuber ischii is much less on the right than on the left side. The obturator fossæ are oval with the long axis horizontal on the right, and vertical on the left. The left ischium is fractured just below the acetabulum. The left rami of the ischium and pubis are bent somewhat. The upper atrophied end of the right femur is flexed and considerably adducted.

M.N. 705.

VERTEBRAE, RIBS, STERNUM, CLAVICLE, SCAPULA, HUMERUS: Curvature, Rickets. 90 : 86 · 1 90 : 24

The 2nd, 3rd, 4th, 5th, 6th and 7th cervical, and all the dorsal vertebræ, the upper ten ribs on each side and their costal cartilages, the sternum, the right clavicle, scapula, and humerus, and part of the left scapula.

The spine presents a lateral curvature convex to the right, with considerable rotation of the vertebræ, which is most marked in the 5th, 6th and 7th dorsal vertebræ. The line of the spinous processes is correspondingly curved, but to a less degree than that of the bodies. The left half of the chest is much more capacious than the right. All the left ribs are bent downwards at their tubercles and are slightly twisted, and the angles are opened out. The right ribs are much bent at their angles, which form a prominent ridge posteriorly. Antero-laterally the right chest wall is flattened, and presents a shallow broad groove near the anterior ends of the ribs. The anterior extremities of all the ribs are enlarged. The normal curves of the clavicle are exaggerated. The humerus has its ends somewhat enlarged, and its shaft has a slight curve convex outwards.

BONES AND JOINTS: OPERATIONS.

M.N. 425.

FEMUR (Right): Atrophy (from disuse). 97·3:91
97·3:41

The lower end, at the seat of the amputation, is rounded. There is some production of osteophytic new bone on the linea aspera at its lower end. The whole is much lighter than normal.

M.N. 710. Mr. Bradley.

FEMUR: Amputation, Regeneration, Ossification of Tendon. 97·3:91
97·3:61
83·1:42·9

The specimen shows the free end of the stump of a femur after amputation. The free end is somewhat enlarged and rounded by new formation of bone, and at one point, where a tendon was attached, the overgrowth of bone has taken the form of a large irregular spicule.

M.N. 844. April, 1876. Mr. Lund.

97·4:91

Screw and wire removed from a case of excision of the knee seven weeks after operation.

M.N. 846.

96·4:91

Screw removed from a case of operation for ununited fracture of the humerus.

The patient was admitted to Monsall Fever Hospital for erysipelas.

CRANIUM: CONGENITAL ABNORMALITIES.

M.N. 958.

CRANIAL VAULT OF A CHILD. 91 : 12 · 2

The anterior fontanelle is not closed, and by transmitted light it is seen that the ossification has taken place irregularly.

CRANIUM: MECHANICAL LESIONS.

M.N. 728. Mr. Turner.

PARIETAL BONE: Fracture. 91 : 21

The patient, a girl of 12, showed no symptoms from the fracture in this case.

M.N. 729. D.B. 1036. March 12, 1890. Prof. Hare.

CALVARIUM: Depressed Fracture. 91 : 21

M.N. 731.

FRONTAL PARIETAL BONES: Fracture. 91 : 21 · 3

A large depressed fracture has involved portions of both bones. The fractured bone is in four fragments and a small piece has been lost. The edge of the intact bone is slightly bevelled at the expense of the internal table, and one of the fragments is fractured through the external table only.

M.N. 732.

THE VAULT OF THE CRANIUM: Fracture. 91 : 21 · 3

A depressed fracture of both parietal bones has occurred. The inner table is bent at the periphery of the depression and the area of depression is greater internally than externally, but the external table of the right parietal is cracked concentrically with the main fracture.

M.N. 734.

FRONTAL, PARIETAL, AND OCCIPITAL BONES: Fracture. 91 : 21
91 : 24

A large deep indentation of the whole thickness of the skull internal to the right frontal eminence, with some solution of continuity of the bone.

The margin of the depression is smooth and rounded. The general form of the cranial vault is abnormal, and the left side is somewhat larger than the right. The internal projection of the bone passes slightly to the left side of the line of attachment of the falx cerebri. The surface of the depressed bone internally is irregular, but smooth.

M.N. 736.

CRANIAL BONE AND BRAIN: Trephine Wound. 91 : 22
73 · 1 : 55 · 7

The specimen shows a portion of cranial bone to which the underlying dura and cortical substance are attached round an aperture about the size of a florin, resulting probably from a trephine wound.

M.N. 833.

FRONTAL BONE: Fracture. 91 : 21 · 5
91 : 55 · 1

The depressed fracture was produced by a bullet. A portion of the depressed bone is missing, and of the remainder the inner table in two fragments projects into the cranial cavity; the outer table is necrosed and partially separated. The edges of the fracture are rarefied, and there is a slight deposit of new bone on the inner table for some distance.

M.N. 834. Mr. Lund.

TEMPORAL AND PARIETAL BONES; Bullet Wound. 91 : 22
73 : 28

A bullet traversed the brain substance, passing right across to the opposite side, and at the autopsy it was found in the posterior horn of the left lateral ventricle, $1\frac{1}{2}$ in. away from the direct track. Along the whole of the track the brain substance showed hæmorrhages. It is supposed that the position of the bullet was due to changes in the position of the body after death. The specimen is a small quadrilateral piece of the parietal and squamous portion of the temporal bone. There is a perforation of the bone slightly larger than the bullet. The internal aperture is larger than the external.

M.N. 956.

SKULL: Hydrocephalus. 91 : 27
91 : 41 · 2

The cranium is very large compared with the face. The frontal, coronal, sagittal, lambdoid and parieto-squamosal sutures are all widely open except at the lower portion of the coronal on each side. Small islands of bone have been formed in the membrane connecting the various bones of the vault. The occipital bone is in five pieces.

M.N. 957. Dr. Ashby.

CRANIUM: Atrophy from Distension. Delayed Ossification. 91 : 27
91 : 41 · 2

The bones are much thinned and are everywhere translucent. The dimensions of the vault are increased, being $7\frac{1}{4}$ in. antero-posteriorly and $5\frac{3}{4}$ in. transversely. The bi-temporal diameter measures $6\frac{3}{16}$ ins. The anterior fontanelle is obliterated. The frontal bone is connected to the parietal bones by a narrow strip of membrane throughout the greater part of the length of the coronal suture. The parietal bones are also connected by a narrow strip of membrane. A Wormian bone lies in the position of the posterior fontanelle and closes it. The bone bordering the sutures has a drawn-out, fibrous appearance, and an irregularly serrated edge.

M.N. 2491. D.B. 2335. Jan. 29, 1894. Mr. Southam.

FRONTAL AND PARIETAL BONES: Compound Comminuted Depressed Fracture with Hernia Cerebri. 91 : 21 · 1

There is a large, somewhat triangular deficiency in the left side of the frontal bone. The middle portion of the left margin is semi-circular, owing to a trephine wound which cut the external table only. The edges of the fracture are bevelled at the expense of the internal table and are rough and eroded.

M.N. 3267. D.B. 2499.

SKULL: Fracture. 91 : 21
71 : 33

On the skull is seen a "starred" fracture over the left parietal eminence. On the inner aspect corresponding to the side of the fracture is a very large, extra-dural hæmorrhage, which had formed a tumour-like mass, and had led to compression of the brain.

M.N. 3727. D.B. 3394. P.M.M. 1895, No. 135. March 20, 1896. Dr. Harris.

SKULL: Atrophy from Pressure, Erosion. 91 : 27
91 : 41

The skull vault is enlarged, thin, and asymmetrical. The bulging over the lower part of the right parietal region is very marked, and the bone is much atrophied and in places completely eroded. The atrophy was due to the presence of a large sarcoma in the right parietal lobe. (See brain M.N. 3726—73·1 : 65·3.)

CRANIUM: INFLAMMATORY LESIONS.

M.N. 450.

FRONTAL BONE: Formative Ostitis. 91 : 55 · 1

On the internal surface are two symmetrical bosses of bone $1\frac{1}{4}$ inches long, and $\frac{3}{4}$ to 1 inch in width, situated about $\frac{1}{4}$ inch from the mesial line. Several smaller masses are seen nearer the lower margin. The cut edge of the bone is denser than normal.

M.N. 498.

CRANIAL VAULT: Inflammation and Necrosis. 91 : 55 · 4
91 : 55 · 2
91 : 44 · 7

A large area of necrosed bone which is attached only by membrane has been formed from the adjacent portions of the left parietal and occipital bones. A considerable amount of osteo-porosis has taken place, but no new bone has been formed.

M.N. 861. Mr. Windsor.

SKULL: Osteo-Sclerosis. 91 : 55 · 1

The specimen is a triangular portion of bone from the vault of the skull, which has been taken from an area of localised thickening—osteo-sclerosis. The apex of the triangle is of about normal thickness and appearance, but at the base of the triangle the bone is about $\frac{1}{2}$ an inch in thickness, and of dense structure. The periosteal surface is pitted and irregular, and portions of the periosteal tissues are adherent to it. The dural surface is still more irregular over the corresponding area, and is covered with an irregularly pitted layer of tissue of inflammatory origin. The history shows that a tumour had formed in the dura under this area of osteo-sclerosis. The bone projected markedly over the area affected, and this projection had existed 20 years. (The tumour was probably a gumma.)

CRANIUM: SPECIFIC INFLAMMATIONS.

M.N. 489.

FRONTAL BONE, PARIETAL BONES, OCCIPITAL BONE, SPHENOID: Condensing and Rarefying Ostitis, Formative Periostitis (Syphillis). 91 : 56 · 3 / 91 : 55 · 1 / 91 : 55 · 2

The bones are increased in weight and sclerosed. On the left side of the frontal are two areas of somewhat rarefied bone, one 3·6 c.m. by 2 c.m., the other 1·8 c.m. in diameter. A raised margin of new formation surrounds the areas, and is continuous with a very thin deposit of new bone over a large portion of the frontal, and over the parietal bones near the coronal and sagittal sutures. Internally there is a large area of deposit of new bone on the left half of the frontal. Near the middle line is an excavation corresponding to the area seen externally.

M.N. 490.

FRONTAL, PARIETAL, AND OCCIPITAL BONES: Rarefying Ostitis and Osteo-Sclerosis. 91 : 56 · 3 / 91 : 55 · 1 / 91 : 55 · 2

The bones are increased slightly in weight. The general external surface is irregular from small, slightly prominent nodules of dense bone. On the frontal bone there is a large area which is rough from loss of the external table, and presents islands of dense bone. The left half of the internal surface of the frontal presents a finely convoluted appearance.

M.N. 491. Mr. Jordan.

PARIETAL BONES: Rarefying Ostitis; Condensing Ostitis; Necrosis (Syphilis?) 91 : 56 · 3 / 91 : 55 · 4 / 91 : 55 · 1

The external surface is very rough and irregular, due to destruction and new formation of bone. The internal surface is covered by a finely pitted layer of dense new bone.

M.N. 492.

FRONTAL PARIETAL BONES FROM A CASE OF SYPHILIS: Rarefying Ostitis, Formative Ostitis. 91:56·3 91:55·2 91:55·1

Externally on the frontal bone, in the middle line, is a large patch, somewhat depressed, which is pitted and finely grooved from absorption. In the middle of the patch is a small excavation partially covered by three ridges of new bone. On the right parietal bone is an area which is rough from absorption, accompanied by irregular new formation of bone. The internal surface of the vault presents numbers of small, round pits.

M.N. 493.

THE VAULT OF THE CRANIUM: Rarefying Ostitis, Formative Ostitis, Syphilis. 91:56·3 91:55·1 91:55·4 91:22

The external surface is very irregular from loss of bone, and new formation of nodules of bone. The vault is perforated in numerous places. The internal surface presents perforations and areas of loss of the internal table, and at some places newly-formed bone.

M.N. 494.

THE CRANIAL VAULT: Rarefying Ostitis. Formative Ostitis. Condensing Ostitis. Necrosis. (Syphilis). 91:56·3 91:55·1 91:55·4

The bones are greatly increased in weight and thickness, and the diploe is completely sclerosed. The external surface is very rough and irregular from necrosis, and from deposition of nodules of new bone. Internally the surface is, over the greater extent, covered by a layer of dense new bone.

M.N. 495.

OBLIQUE SECTION OF THE ANTERIOR PART OF THE CRANIAL VAULT: Rarefying Ostitis. Necrosis. Condensing Ostitis. Syphilis. 91:56·3 91:55·4 91:55·1

The bones are greatly increased in thickness and weight, and are densely sclerosed. The necrosis affects in several places the whole thickness. The sequestra, one of which is loose, are three in number, and are separated from the rest of the bone by a well-defined line of demarcation. The internal surface presents, near the affected area, many small round pits and fine convolutions.

M.N. 496. Mr. Jones.

FRONTAL AND PARIETAL BONES: Rarefying Ostitis. Necrosis. Condensing Ostitis. Syphilis. 91 : 56 · 3
91 : 55 · 1
91 : 55 · 4

The bones are much increased in weight and thickness, and are sclerosed. The external surface is uneven, and is marked by several shallow depressions due to partial or complete destruction of the external plate. In the left frontal is a deep excavation in which lies a sequestrum. On the right frontal is a similar loss of bone and a portion of the sequestrum has come away.

M.N. 497.

FRONTAL, PARIETAL, OCCIPITAL BONES: Necrosis. Condensing Ostitis. (Syphilis). 91 : 56 · 3
91 : 55 · 4
91 : 22

The bones are increased in weight and thickness, and the diploe is completely sclerosed. On the external surface are several roughened areas resulting from superficial loss of bone. The internal surface is finely convoluted over three large areas. There is a hole in the right parietal about 8·5 c.m. in diameter resulting from necrosis. The anterior edge of the hole is formed by membrane, from which project scalp hairs. Along the lower margin are three partially separated sequestra.

M.N. 499. Mr. Jones.

CRANIAL VAULT: Syphilitic Necrosis. 91 : 56 · 3
91 : 55 · 4
91 : 55 · 2
91 : 55 · 1

Extensive destruction of bone from syphilis is seen involving the occipital and both parietal bones, and extending forwards into the frontal. Fragments of necrosed diploe form sequestra *in situ*, and in the portions of bone not necrosed there is evidence of condensation.

M.N. 500.

THE UPPER PORTION OF THE FRONTAL BONE AND A PIECE OF BOTH PARIETALS: Rarefying Ostitis. Formative Ostitis. Necrosis. (Syphilis). 91 : 56 · 3 91 : 55 · 1 91 : 55 · 4 91 : 22

The bones are sclerosed. There is a hole in the left side of the frontal bone reaching to the mesial line, 2 c.m. long by 1·5 c.m. broad, which is surrounded by a ring of rarefied bone. This ring is sharply marked off by a deep groove from the remainder of the bone. Over the greater part of the internal surface there is a deposit of new bone, thickest near the middle line, and its surface is like the convolutions of the brain in miniature.

M.N. 501. Mr. C. E. Richmond.

VOMER: Necrosis. Sequestrum. Syphilis. 91 : 56 · 3 91 : 44 · 7

The whole specimen is a sequestrum consisting of the alæ and the greater part of the mesial plate of the vomer. Lying between the alæ is a portion of the rostrum of the sphenoid. The bone is very friable.

M.N. 528.

PORTION OF FRONTAL AND LEFT PARIETAL BONES; Syphilitic Necrosis. 91 : 56 · 3 91 : 44

On the inner surface of the frontal and parietal bones is seen a large, irregular ulceration, which has eaten away the inner table over almost its entire extent. In the region of the coronal suture the thinness of the remaining bone is most marked. The external surface, corresponding to a portion of the area of internal necrosis, shows erosion.

M.N. 2792. D.B. 4286. Dec. 28, 1904. Dr. Edge.

CALVARIUM ; Syphilitic Necrosis. 91 : 56 · 3
91 : 44

In the middle line there is a large, irregular opening, involving both parietal bones, but especially the right, and it has been enlarged by a trephine wound, the edge of which is smooth and circular. The edge of the remaining portion of the opening is rounded and irregular. On the inner table may be seen an iregularly rounded area of destruction of bone, anterior to the opening.

The patient was a man aged 40, who complained of severe headache for 6 weeks before admission. There was a circumscribed abscess in the scalp over the right Rolandic area. The bone was exposed at the base of the abscess and there was a small perforation into the cranial cavity. There was a cerebral abscess under the anterior portion of the diseased bone. The patient suffered from left hemiplegia and extreme mental apathy.

CRANIUM: BENIGN TUMOURS.

M.N 726.

SKULL; Sclerosis; Exostosis. 91 : 63 · 4

On the frontal bone is a dense rounded ivory exostosis. Just above the superior curved line of the occiput is a smaller one, and several others occur on the external surface of the cranium. The diploe is obliterated by dense bone in some situations.

M.N. 727.

SKULL: Exostosis. 91 : 63 · 4

Immediately in front of the coronal suture on the left side is an oval dense rounded prominence.

M.N. 850. Mr. Turner.

SKULL OF SHEEP; Exostosis. 91 : 63 · 4

A portion of the left half of the tumour has been removed. Springing from the frontal bone, almost in the middle line, is a large rounded excrescence of spongy bone.

CRANIUM: MALIGNANT TUMOURS.

M.N. 860.

PARIETAL, FRONTAL and OCCIPITAL BONES: Osteo-Sarcoma. 91:65·(63·4) 91:55·1

The parietal and frontal bones are enormously increased in weight and thickness. The external surface is extremely rough, the spicules of bone being like the bristles on a brush. Rising above the general surface are several excrescences. At the posterior part of the parietal bone the swelling is smooth but marked by fine deep curved grooves. There is no diploe. The internal surface of the frontal and anterior halves of the parietals are rough, but the spicules are smooth at their free extremities. About 2 c.m. in front of the lambda is a foramen. The occipital bone is normal.

M.N. 862.

SKULL: Sarcoma. 91:65·1

The bony vault is studded with rounded growths of a soft tissue, which have destroyed the bone. One of these has been removed and has left a rounded perforation in the bone with serrated edges.

On microscopical examination the tumour is found to be a round-celled sarcoma.

M.N. 3194. Oct. 21, 1904. Mr. Wright.

CRANIUM: Sarcoma. 91:65·1

This sarcomatous growth had begun in the frontal bone and in the overlying scalp. The tumour has a soft cellular texture and shows numerous small hæmorrhages. It has a very well-defined outline except at this point. At the margin of the tumour may be seen numerous small spicules of bone, which broke away with the growth on its removal.

On microscopic examination the tissue is found to be that of an alveolar

sarcoma. The cells occur in rounded groups, which are separated from each other by delicate strands of fibrous tissue. The tissue is very vascular.

The patient was a man, aged 34 years, with a six months' history of a growth of the forehead, which increased rapidly. It was situated in the centre of the forehead, was very prominent, and had a diameter of four inches. It was soft, elastic and pulsating, and the blood-vessels around it were much enlarged. There were no cerebral symptoms. The tumour was removed Oct. 21, 1904. It had perforated the dura mater over an area of $1\frac{1}{2}$ in. The brain was involved.

BONES OF THE FACE: RETROGRESSIVE DISORDERS.

M.N. 3209. D.B. 4422. Oct. 31, 1901. Mr. Wright.

LOWER JAW; Necrosis. 92·2:44

These three sequestra of bone were removed from the mandible by operation. The largest is made up of the whole thickness of the condyle of the jaw with adjacent bone. The sequestrum shows a surface irregular from erosion due to the inflammatory process.

The patient was a boy, aged 5 years.

BONES OF THE FACE: BENIGN TUMOURS.

M.N. 851. Mr. Turner.

INFERIOR MAXILLA OF A HORSE: Exostosis. 92·2:63·4

Springing from the right side of the jaw near its lower border is a pedunculated mass of spongy bone, which presents a deep hollow anteriorly. The pedicle is denser than the mass.

M.N. 866A. Mr. Morris.

PORTION OF THE MAXILLA; Epulis. 92·2:63·2

A tooth is seen embedded in a rounded tumour growing from the jaw. The tissue is composed of spindle-shaped cells with a few giant cells scattered here and there.

M.N. 1786. Mr. Southam.

MAXILLA: Fibroma. 92:63·2

The round tumour has a dense, fibrous appearance. On its upper surface there is a small piece of bone from the maxilla.

The microscopic section shows that the tissue is composed of cells, with well-defined nuclei. The fibres show the characteristic interlacing arrangement. There is a slight tendency to calcification.

M.N. 2998. Mr. Montgomery.

MANDIBLE: Osteoma. 92·2:63·4

The specimen consists of a spongy exostosis of the lower jaw. The surface is smooth, and the base is constricted, and shows the structure of cancellous bone.

The patient was a woman, aged 63 years, with a history of several years' painless tumour growth.

BONES OF THE FACE: MALIGNANT TUMOURS.

M.N. 863.

SUPERIOR MAXILLA (LEFT): Sarcoma. 92·1:65·4
31·4:45·2
31·5:44

The specimen is a rounded encapsuled tumour, the situation of which is defined above by the lower rim of the orbit, inferiorly by the alveolar margin and hard palate. It has formed as an expanding growth distorting the boundaries of the superior maxilla. The structure is that of a myeloid sarcoma. The palate is expanded throughout by the growth, and anteriorly there is evidence of ulceration of the mucous membrane. The teeth show caries.

M.N. 864. Dr. Wilkinson.

SUPERIOR MAXILLA; Round-celled Sarcoma. 92·1;65·1

The whole structure of the right superior maxilla has become infiltrated by a sarcomatous tumour which has not only replaced the bone, but has filled up the antrum, bulged markedly into the nasal cavity, and grown also outwardly. The structure is that of a small round-celled sarcoma. There is a central area of myxomatous degeneration. According to the history of the case, secondary growth had formed in the ribs and pelvis.

M.N. 865.

SUPERIOR MAXILLA: Squamous Epithelioma. 92·1:66·1

The right superior maxilla is the seat of a large mass of tumour which extends upwards from the region of the hard palate for two and a half inches. It has a rounded outline and a well-defined border.

Microscopically it is seen to have the typical structure of squamous epithelioma.

M.N. 869. D.B. 317. June 12, 1886. Mr. Whitehead.

INFERIOR MAXILLA: Endothelioma. 92·2:66·5

A flat somewhat rounded tumour occupies the alveolus of the lower jaw and passes down over the inner aspect of the bone. It is definitely encapsuled, and where a portion of one of the nodules has been cut off, the surface of section shows that the tissue consists of a meshwork of fibrous tissue enclosing groups of cells.

Microscopic examination shows that there is a well-developed matrix of fibrous tissue, the open lymph channels of which are lined by endothelial cells, giving parts of the tissue an almost tubular character. The tumour was of 7 years' growth.

M.N. 870. Mr. Whitehead.

INFERIOR MAXILLA: Sarcoma. 92·2;65·4

The specimen is one half of a widely expanded inferior maxilla, which has been divided lengthwise, and presents an endosteal myeloid sarcoma. The tumour is composed of opaque, granular-looking, friable material, with a considerable amount of blood extravasation in its substance. The bone is thinned, and remains as a thin shell which has broken down at one point.

M.N. 872.

LOWER JAW; Periosteal Sarcoma. 92·2;65·4

The specimen is a portion of the horizontal ramus of the left half of the inferior maxilla. At the lower border the growth which commenced on the inner aspect has formed a large, irregular, fleshy mass, spreading inferiorly as a rounded tumour, and also forming an extension over the periosteum on the outer aspect of the jaw. The sarcoma has not invaded the bone. The mouth of a large blood-vessel is seen on the inner surface of the tumour.

M.N. 873. D.B. 1971. March 27, 1893. Mr. Whitehead.

INFERIOR MAXILLA: Sarcoma. 92·2:65·3

The tumour has converted the bone into a large, rounded mass of osteo-sarcomatous tissue. It is well encapsuled, but shows a tendency to break through the surface along the upper alveolar border.

The microscopic examination shows a tissue composed of mixed cells. These are chiefly round cells, but there are numbers of large, somewhat granular cells, of a more fusiform type.

M.N. 874.

INFERIOR MAXILLA: Malignant Epulis. 92·2:65·4

The small segment of the inferior maxilla which bears a molar tooth, is to a large extent replaced by a malignant epulis, which, on microscopic examination, is seen to have the typical structure of a myeloid sarcoma.

M.N. 1139.

RIGHT SUPERIOR MAXILLA: Sarcoma. 92·1:65·1

Projecting backwards from the level of the posterior margin of the nasal septum, for fully 3 ins., is an irregular nodular mass of tumour growth, which is furnished with a capsule.

The microscopic structure is that of a round-celled sarcoma.

M.N. 2260. May 1, 1893. Mr. Stanmore Bishop.

LOWER JAW: Squamous Epithelioma. 92·2:66·1

The history of the case is that for $3\frac{1}{2}$ months pain was felt in the face and neck on the left side. Swelling of the jaw was noticed $1\frac{1}{2}$ months later. At this time there was some free bleeding from the anterior portion of the maxillary border. At the time of operation there was a hard swelling involving the left half of the inferior maxilla, extending backwards to the angle of the jaw, and forward to a little beyond the symphysis, protruding the cheek, but not involving it. A mass continuous

with this, the size of an orange, was felt in the floor of the mouth, involving the genio-hyoglossus of the left side entirely, and that of the right side partially. The tongue was movable, and could be protruded, but with difficulty. The cervical and submaxillary glands were not involved. Removed May 1, 1893; recurrence Sept. 8, 1893.

M.N. 2982. Apr. 3, 1905. Mr. Southam.

LOWER JAW; Sarcoma. 92·2:65·3

The specimen consists of a portion of the mandible including the symphysis, on the back of which a tumour has grown. The upper aspect of the tumour shows the mucous membrane of the floor of the mouth, and a row of very much displaced teeth. The mass of the tumour has been divided in the middle, and it is seen that cystic spaces have developed in its substance; the contents of these are gelatinous in character. The walls of the cysts are somewhat irregular and ragged, and in the neighbouring tissue there is a considerable amount of hæmorrhage. The tumour has apparently started posteriorly, but has grown round the border, and bulges in front of the bone.

The patient was a man, aged 67 years, who had noticed a steadily growing enlargement of the mandible for eight months. There had been some bleeding from the gum. The jaw was involved for two inches on each side of the symphysis. The portion of the jaw was removed April 3, 1905.

M.N. 3008. June, 1902. Mr. Wright.

LOWER JAW: Sarcoma. 92·2:65·3

The tumour springs from its inner surface and extends round the lower border to the outer surface of the mandible. At one point it may be seen invading the bone.

Microscopically, it is a mixed-celled sarcoma.

The patient, a male, aged 51, gave the following history:—In March, 1901, a small growth was removed from the alveolar margin. Recurrence took place in June, 1901, and in July a second operation was done, when about 2 inches of the right half of the mandible were removed. In April, 1902, the left half of the mandible showed a swelling, and in June about 2 inches of this portion of the mandible were removed. The specimen consists in the tissues excised at the last operation.

M.N. 3079. Nov., 1901. Mr. Thorburn.

LOWER JAW: Fibro-Sarcoma. 92·1:65·3

A lobulated mass projects from the outer aspect of the alveolar margin. It is not ulcerated, but the layer of epithelium covering it is exceedingly thin from atrophy.

The patient was a male, aged 46 years. The growth was recurrent, and was removed by sawing through the sockets of the teeth on either side. The operation took place in Nov., 1901.

M.N. 3133. Nov. 6, 1903. Mr. Thorburn.

JAW: Myeloid Sarcoma 92·2:65·4

The right half of the mandible is enlarged by sarcomatous growth. It extends from the angle of the jaw to within an inch of the symphysis, and is endosteal in origin, projecting equally on the inner and outer surfaces, and expanding the alveolus. On section it has the characteristic red appearance of a myeloid sarcoma. The cavity seen in the centre of the growth was formed during the preliminary exploration.

The patient was a man, aged 22 years, with a history of 6 months' rapid and painless swelling of the jaw. After preliminary exploration, the portion of the mandible was excised Nov. 6, 1903.

M.N. 3389. D.B. 1976.

MAXILLARY ANTRUM: Fibro-Sarcoma. 92·1:65

This specimen includes the hard palate and portions of the superior maxilla. The antrum is filled with the tumour growth, which projects into the nasal cavity.

The microscopic structure is that of a fibro-sarcoma.

The patient was a man, aged 72.

M.N. 3391. D.B. 1975.

LOWER MAXILLA: Squamous Epithelioma. 92·2:66·1

The inferior maxilla has been expanded markedly by the growth of a central tumour. The tumour mass is covered in great part by the bony envelope, but in the alveolar margin an outgrowth has occurred which is observed projecting above the level of the teeth.

Microscopic examination of this part of the tumour shows the typical structure of a squamous-celled epithelioma. The growth probably originated in the gum.

The patient was a girl, aged 18.

M.N. 3597. D.B. 4665. August 5, 1905. Mr. Platt.

SUPERIOR MAXILLA: Sarcoma. 92·1:65

The specimen consists of a portion of the upper jaw which was the site of an osteo-sarcoma. It is covered by a layer of smooth epithelium, and at one point are seen the remains of a carious tooth. It had a hard bony consistency.

The patient was a boy, aged 13 years. The growth had been noticed for about two years. The upper jaw was excised Aug. 5, 1905.

M.N. 3744. D.B. 4428. May 10, 1905. Mr. Thorburn.

UPPER JAW: Sarcoma. 92·1;65·2(42·9)

A rounded somewhat pale tumour mass occupies the maxillary antrum and causes marked bulging on the outer aspect. It has a fibrous appearance on the cut surface, and on microscopic examination shows a tissue composed of spindle-shaped cells, closely packed together in some areas, and separated from each other elsewhere by a homogeneous and not distinctly fibrillated matrix. A large number of the blood-vessels have very thin walls. Throughout the tissue there are very numerous spherules of calcareous salts.

BONES OF THE FACE; GENERAL NUTRITIONAL AND TOXIC DISORDERS.

M.N. 511. March 13, 1883.

INFERIOR MAXILLA: Phosphorus Necrosis. 92·2:87·3
92·2:41
92·2:55·1

The bone as a whole is atrophied, and this is seen especially along the alveolar margin. The inferior dental foramen for the nutrient artery is widened, and the mental foramen is occluded. A zone of new bone formation is seen on both aspects of the ascending portion, and along the lower border of the horizontal ramus. The new bone has a roughened, spongy surface. On the inner aspect of the horizontal ramus, above the area of new bone formation, is a considerable amount of superficial erosion. The coronoid process has been taken off. All the teeth are absent.

M.N. 512.

INFERIOR MAXILLA: Necrosis. Formative Periostitis. 92·2:87·3
92·2:55·1
92·2:55·4

The whole jaw, which is one of a young subject, is necrosed. The surface of the original bone is dull and rough. There is a thick layer of new subperiosteal bone adherent to the old bone, and covering the greater part of the left side and to a much less extent the right side. Several of the teeth have dropped out. The condition was the result of phosphorus poisoning.

M.N. 513.

LOWER JAW; Phosphorus Necrosis. 92·2:87·3

There is widespread necrosis involving the whole of the right side and the bulk of the left. The white necrosed bone passes indefinitely into the remaining healthy bone of the left side. The alveolar margin has been the chief seat of necrosis, and has been extensively hollowed out.

M.N. 514. Mr. Turner.

INFERIOR MAXILLA: Phosphorus Necrosis. 92·2:87·3
92·2:55·4
92·2:55·1

A large part of the left half of the jaw bone has been destroyed, including a part of the ramus. The middle portion is represented by a bar of bone formed by the lower border. The remaining bone is partly covered by a thin layer of new subperiosteal bone. The mental foramen opens into a cavity in the substance of the jaw.

M.N. 515.

INFERIOR MAXILLA; From a Case of Phosphorus Poisoning? 92·2:87·3
92·2:55·4
92·2:55·1

The ramus is much increased in thickness, and the anterior two-thirds of the left side form in part the walls of a cavity in the bone which extends as far as the right mental foramen. Posteriorly to the line of the teeth a large part of the wall of the cavity is deficient. A large cloaca opens in the mental border at the symphysis.

VERTEBRAE: CONGENITAL ABNORMALITIES.

M.N. 959.

VERTEBRAL COLUMN: Spina Bifida. 93 : 12 · 4

The specimen shows imperfect development and defective closure of the vertebral canal in the lumbo-sacral portion of the spinal column. The roof of the expanded spinal canal is formed by an irregular mass of cartilaginous tissue.

M.N. 960. D.B. 871. P.M.S. 1887, No. 126. July 11, 1889.

VERTEBRAL COLUMN: Spina Bifida. 93 : 12 · 4
72 : 54 · 4

The spina bifida is situated low down in the lumbar segment of the vertebral column. The soft tissues have been removed and the defective development of the laminæ and dorsal processes of the vertebra is clearly seen. A protrusion of the dura mater has taken place, forming a large rounded tumour covered by skin and subcutaneous tissue. A portion of the outgrowth has been removed to show the cavity. The spinal cord terminated in the pedicle of this structure in the form of a smooth rounded mass; but the nerve cords of the cauda equina are continued below this level. The cavity was continuous with the subdural space of the spinal cord. The record of the case shows that suppuration had occurred in the cyst and in the cavity of the spinal canal.

The patient was a boy, aged 4 years.

M.N. 961.

VERTEBRAL COLUMN (LUMBAR): Spina Bifida. 93 : 12 · 4
71 : 23 · 2

In a portion of the back of a young child is situated the superficial cyst of a spina bifida. The wall of the cyst has collapsed from rupture. The superficial skin which formed the outer covering of the cyst is thin and atrophied.

M.N. 962.

VERTEBRAL COLUMN (SACRAL): Spina Bifida. 93 : 12 · 4
71 : 23 · 2

There is defective closure of the spinal canal in the region of the upper sacral vertebræ. The dura mater of the cord has formed a protrusion at this site, and caused a large tumour-like mass of projection on the skin surface. The nerve cords of the cauda equina are seen apparently becoming buried in the wall of the cyst-like space. The skin over the most prominent part of the tumour is very much atrophied, and a small perforation in the wall is present in the centre of the atrophied area. The section of the spinal cord has the normal appearance.

M.N. 966.

SPINA BIFIDA. 93 : 12 · 4

The specimen shows the outer portion of the protrusion from a case of spina bifida. The skin covering the outer surface shows a superficial bleb, but is otherwise normal. The wall of the structure consists of skin and subcutaneous tissue. At one point in the wall, a small nodule of cartilage may be seen. This is apparently the tip of one of the vertebral processes.

M.N. 2909. D.B. 3504. P.M.S. 1896, No. 68. Mr. Jones.

SACRAL VERTEBRA: Spina Bifida. 93 (05 : 7) ; 12 · 4
71 : 23 · 2

The sacrum is dissected out, and from its posterior surface, where there has been defective closure of the spinal canal, there springs by a pedicle a large rounded cyst-like mass covered with skin, and having soft collapsing walls.

The patient suffered also from talipes equino-varus, which had come on after an attack of scarlet fever. On admission he had a large sore over the dorsum of the foot resulting from walking. He had also incontinence of urine and fæces, and was in a very exhausted condition. The meningocele escaped by a small aperture situated at the upper part of the sacrum. There were apparently no nerve elements involved in the meningocele.

The patient was a male, aged 19.

VERTEBRÆ: MECHANICAL LESIONS.

M.N. 600.

VETEBRÆ, ATLAS AND AXIS: Dislocation. Formative Ostitis. Anchylosis. 93:23·1 93:55·1

The axis is dislocated backwards. The dislocation of the right atlanto-axial joint is partial, and that of the left complete; so that the left upper axial articular facet is in contact with the posterior arch of the atlas. The left dislocation may have been complicated by fracture of the margins of the facets The odontoid process occupies a position equidistant from the anterior and posterior arches of the atlas, and almost touches the right lateral mass; the tip points upwards and to the right. The two bones are anchylosed together, slightly on the right and completely on the left, and the odontoid process is connected by two bars of bone to the posterior arch of the atlas.

M.N. 730. D.B. 4861.

CERVICAL VERTEBRÆ: Dislocation. 93 (03) : 23

The specimen consists of the upper cervical vertebræ from a case of judicial execution by hanging. There is a complete dislocation of the bodies and articular processes of the third and fourth cervical vertebræ, which are held together only by the soft structures attached to the spinous processes. There is no marked lateral or antero-posterior displacement. The spinal cord is flattened opposite the posterior margin of the lower vertebral body, but is not torn.

M.N. 738

ATLAS, AXIS: Fracture. Anchylosis. 93:21 93:55·1

The left half of the posterior arch of the atlas is fractured obliquely, and the anterior arch is fractured close to the left lateral mass. The tip of the odontoid process of the axis is broken off. There is no evidence of a reparative process. Anteriorly there is a small amount of new bone-formation between the atlas and body of the axis, leading to a partial anchylosis.

M.N. 740

VETEBRÆ, RIBS: Fracture. 93:21
93:55·1
95:21

There has been a fracture through the body of one of the middle dorsal vertebræ, with extreme displacement of the upper part of the spine forwards and to the left, exposing about 3·5c.m. of the vertebral canal. Several of the ribs are also broken away at the neck. A large amount of callus has been thrown out; but there is no complete union of the sections of the vertebral column.

M.N. 743.

VERTEBRÆ (10th, 11th, and 12th Dorsal, and 1st and 2nd Lumbar): Fracture. 93:21

There is a complete fracture of the body of the last dorsal vertebra. The anterior portion of the body of the vertebra has been chipped off. There has been no attempt at union. Part of the articular surface of the zygapophysis has also been fractured on the right side.

M.N. 744B.

VERTEBRAL COLUMN (Dorsal): Fracture. 93:21·3
93:23

This portion of the dorsal segment of the column extends from the 2nd to the 8th vertebra. The body of the 7th vertebra shows a fracture which has resulted in the chipping off of a part of the anterior surface. The vertebra has been also dislocated backwards, and the bone projects into the spinal canal for about $\frac{1}{3}$ of an inch, and presses on the spinal cord.

M.N. 744A.

VERTEBRAL COLUMN (Dorsal): Fracture. 93:21·3
93:23

This specimen consists in the remaining half of the specimen M.N. 744B.

M.N. 745.

VERTEBRÆ AND SACRUM: Fracture. 93 (05 · 4) : 21 · 1
93 (05 · 4) : 21 · 7

The upper anterior margin of the 5th lumbar vertebra has been broken off, without displacement, and firmly re-united. From behind is seen a rupture of the disc between the 4th and 5th lumbar vertebræ. There is no narrowing of the vertebral canal, but the extent of the injury indicates that its immediate effect was to cause considerable temporary displacement.

M.N. 2735. Mr. Thorburn.

CERVICAL VERTEBRÆ: Dislocation between 6th and 7th Cervical Vertebræ. 93 (03) : 23

The disc between the 6th and 7th cervical vertebræ is pressed back against the theca, forming a distinct shelf. There is no fracture, but the spine has been dislocated. The laminæ of these two vertebræ have been removed by operation, and the theca laid open after death. The patient gave a clear history of the accident, which was a fall downstairs. She got up and went into an adjoining room, when she became paralysed. Two days later she was admitted to hospital with total paralysis, and laminectomy was performed. There was no recovery of function. Death followed on the 16th day after the accident, apparently from renal hæmorrhage. The wound was healed. The symptoms were attributed to displacement of the disc after the patient stood up.

M.N. 2736.

LOWER DORSAL AND LUMBAR SPINE: Dislocation between the last Dorsal and 1st Lumbar Vertebræ. Fracture of 1st Lumbar. 93 : 23
93 : 21

The first lumbar vertebra is compressed, and its anterior superior edge broken away, the disc between it and the last dorsal being torn. In spite of the displacement there was no pressure on the theca. (See Thorburn: "Surgery of Spinal Cord," ed. 1889, p. 124.)

M.N. 2737. Mr. Thorburn.

CERVICAL VERTEBRÆ: Dislocation between 5th and 6th Cervical Vertebræ. 93 (03) : 23

There is a dislocation between the 5th and 6th cervical vertebræ unaccompanied by any fracture. The theca is compressed at the seat of injury. (Specimen obtained from the Bolton Infirmary.)

M.N. 2738. Mr. Thorburn.

CERVICAL VERTEBRÆ: Diastasis. 93 : 21
74 : 42

There is a rupture (partial only) of the discs between the 2nd and 3rd and the 3rd and 4th cervical vertebræ, with slight compression of the anterior upper border of the 3rd, but no fracture and no displacement. Lower down in the cord there is softening. The patient survived his injury for 64 days, having symptoms of a cord lesion at the level of the 6th cervical segment. On the 56th day laminectomy was performed. (See Thorburn: "Surgery of the Spinal Cord," ed. 1889, p. 26.)

M.N. 2739. Mr. Thorburn.

FIVE LOWER CERVICAL VERTEBRÆ AND THREE UPPER DORSAL VERTEBRÆ: Dislocation between the 7th Cervical and 1st Dorsal Vertebræ. 93 (03) : 23
93 (04·7) : 21

A fracture of the anterior and upper part of the body of the first dorsal vertebra, a small portion being chipped off and attached to the disc above.

The 7th cervical vertebræ is displaced forwards and the theca firmly compressed, there being hæmorrhage into the cord which reached "as high as the 5th cervical nerve roots in the form of a narrow cone." There was some suppuration between the anterior common ligament of the vertebræ and the fifth cervical vertebra, and at exactly corresponding points on the anterior and posterior walls of the pharynx. (See Thorburn's "Surgery of the Spinal Cord." Ed. 1889, p. 31.

M.N. 2740. Mr. Thorburn.

11th AND 12th DORSAL VETEBRÆ, AND FOUR UPPER LUMBAR VERTEBRÆ. CORD AND CAUDA EQUINA: Dislocation between 12th Dorsal and 1st Lumbar Vertebræ. Fracture of 1st Lumbar. 93 (04 · 7) : 23 93 (05 · 8) : 23 93 (05 · 8) : 21

The 12th dorsal vertebra is displaced forwards and there is slight "grinding off" of the anterior upper border of the first lumbar. The theca is compressed. Both vertebræ show a secondary osteitis, the patient having lived four months after the accident. (See Thorburn's "Surgery of the Spinal Cord." Ed. 1889, p. 122.)

M.N. 2741. Mr. Thorburn.

LUMBAR VERTEBRÆ, CORD and CAUDA EQUINA: Fracture of 2nd Lumbar Vertebræ, and Displacement Backward of Upper Wedge of Bone. 93 (05 · 8) : 21 93 (05 · 8) : 23

The fracture of the second lumbar vertebra was accompanied by marked compression of the theca. (Specimen obtained from the Ancoats Hospital.)

M.N. 2742. Nov. 7, 1889.

LOWER DORSAL AND UPPER LUMBAR VERTEBRÆ. CORD: Dislocation between 12th Dorsal Vertebra and 1st Lumbar. Fracture of 1st Lumbar Vertebra. 93 (04 · 7) : 23 93 (05 · 8) : 23 93 (05 · 8) : 21

There is a fracture of the first lumbar vertebra with displacement forwards of the 12th dorsal, the theca being compressed.

M.N. 2758. D.B. 2285. Jan. 3, 1894. Prof. Jones and Mr. Thorburn.

LOWER FIVE CERVICAL AND UPPER THREE DORSAL VERTEBRÆ: Dislocation between the 5th and 6th Cervical Vertebræ. 93 (03) : 23

There is displacement forwards of the lower edge of the 5th cervical vertebra.

M.N. 2759. D.B. 2501.

CERVICAL VERTEBRÆ: Dislocation between 5th and 6th Cervical Vertebræ. 93 (03) : 23

There is evidence of crushing and splitting of the two discs above and below the dislocation.

M.N. 2808. D.B. 4019B. P.M.S. 262. Nov. 21, 1902. Mr. THORBURN.

VERTEBRAL COLUMN: Fracture of the Intervertebral Disc. 93 (03) : 21
74 ; 21

The fracture occurred in the disc between the 5th and 6th cervical vertebræ. The spinal meninges were not lacerated, but were discoloured from effusion of blood. The cord was lacerated at the site of injury. The injury was sustained during wrestling.

The patient, a male, aged 20, lived 27 hours after the injury.

M.N. 2810. D.B. 4022. P.M.S. 268. Dec. 7, 1902. Mr. SOUTHAM.

CERVICAL VETREBRAL COLUMN: Fracture of a Disc. 93 (03) : 21
74 : 21

Hæmorrhage occurred into the disc between the 3rd and 4th cervical vertebræ, and also behind the body of the 4th vertebra.

The patient, a male, aged 30, lived 84 hours after admission to the Infirmary.

M.N.2827. D.B. 4077. P.M.S. 313. May 18, 1903. Mr. THORBURN.

DORSAL VERTEBRÆ: Fracture. 93 (04 · 7) : 21
93 : 61

Backward displacement of the 11th dorsal vertebra has occurred. There is a deposition of newly formed bone in the space left by the displaced bone. The injury was due to a blow from a machine. The patient suffered from paralysis of both legs. Laminectomy was performed, and sensation returned in the area of the 1st lumbar nerve distribution; it remained absent below that. The motor paralysis remained as before. Cystitis supervened. The patient had repeated rigors. Surgical kidney developed, and he died $10\frac{1}{2}$ weeks after the injury.

The patient was a male, aged 22.

M.N. 3250.

CERVICAL VERTEBRÆ: Dislocation. 93 (03) : 23
85 (93) : 21 · 7

A rupture of the disc between the 5th and 6th vertebræ has occurred, breaking it up into irregular fragments. The vertebræ are also dislocated.

M.N. 3589. D.B. 4375. P.M.M. 709. April 20, 1905. Mr. Judson Bury.

CERVICAL VERTEBRÆ AND SPINAL CORD: Fracture, Dislocation, Compression. 93 : 21
93 : 23
74 : 26

The disc between the 5th and 6th vertebræ has been fractured and there is dislocation between the 6th and 7th. The 7th vertebra has been displaced forwards so as to cause compression of the cord. In the region of the fracture there was a small amount of effused blood in the cellular tissues.

The patient was a male, aged 57. He fell out of a cart, alighting on his head; he died 29 days later. At the autopsy there was suppurative cystitis and suppurative pyelo-nephritis.

VERTEBRÆ: SPECIFIC INFLAMMATIONS.

M.N. 530.

VERTEBRÆ, SKULL, RIBS, STERNUM, PELVIS: Caries, Angular Curvature, Tuberculosis. 93:56·1 93:55·3

The specimen is a very marked case of angular curvature of the dorsal spine. There is a compensatory curvature of the cervical and lumbar spine. The bodies of the 1st to the 11th dorsal vertebræ are almost completely destroyed, and the remainder of the vertebræ together form anteriorly an angle of about 45°. The 5th dorsal spine is the most prominent, and forms the apex of the angle. The neck is short, and the ribs are much depressed and crowded together. The 10th rib rests on the iliac crest. The inclination of the pelvic brim is increased.

M.N. 531.

VERTEBRÆ, PELVIS AND LOWER EXTREMITIES: Caries, Angular Curvature, Tuberculosis. 93:56·1 93:24 93:55·2

The bodies of the 9th, 10th, 11th, 12th dorsal and the 1st and 2nd lumbar vertebræ are almost entirely destroyed, and the upper part of the dorsal spine, which now lies horizontally, has fallen forward, making an angle slightly less than a right angle with the lower lumbar spine. The anterior ends of the ribs lie between the alæ of the ilia.

M.N. 532.

VERTEBRÆ, RIBS, STERNUM, PELVIS: Caries, Angular Curvature, Tuberculosis. 93:56·1 93:55·2 93:24

The bodies of the 12th dorsal and all the lumbar vertebræ are almost completely destroyed, and the 11th dorsal and 1st piece of the sacrum are partially affected, causing an angular curvature of nearly a right angle in the lumbar region. The inclination of the pelvic brim is diminished, and there is a marked convexity forwards of the dorsal and cervical spine, so that the odontoid process projects upwards and backwards. The ribs are inclined upwards from the vertebræ, raising the sternum, the upper end of which is about the level of the lower border of the 4th cervical vertebra. In the position of the angular curvature, anteriorly, is a bridge of new bone arising on each side from the remains of the affected bodies. The inter-articular joints in the lumbar region are anchylosed.

M.N. 533. Mr. Turner.

VERTEBRÆ: Caries. Tuberculosis. 93:56·1
93:24·1

There has been long-standing caries, with almost complete destruction of the bodies of several of the vertebræ in the mid-dorsal region. The bodies of the upper vertebræ in the specimen are also affected. Anchylosis has bent the vertebral column almost to an angle of 45°. The lumen of the canal is nowhere materially constricted.

M.N. 535. Mr. Turner.

VETERBRÆ. 1st, 2nd, 3rd, 4th LUMBAR; Caries. Anchylosis. 93:56·1
93:55·2
93:23·1
93:55·1

The spine presents a lateral curvature, with the convexity to the right, and an antero-posterior curvature with the concavity forwards. The surfaces of the bodies are carious in patches and the bone is generally rarefied. The second and third bodies are anchylosed and the line of union passes from the left obliquely downwards to the right. The spines, laminæ and articular processes of all four vertebræ are anchylosed together by bands and masses of bone.

M.N. 536. Mr. Turner.

VERTEBRÆ. 4th, 5th, 6th, 7th CERVICAL: Caries. Anchylosis. Tuberculosis. 93:56·1
93:55·1
93:24·1

The 7th cervical vertebra is considerably displaced backwards on the 6th. The bodies of all four vertebræ are rarefied and the lower three have lost much bony substance by caries. The four bodies are partially anchylosed together. The laminæ, spines, and articular processes are all anchylosed together.

M.N. 539.

LUMBAR VERTEBRÆ : Tuberculous Abscess. 93 : 56 · 1
93 : 44 · 2
87 : 54 · 5

The lumbar segment of the vertebral column has been divided in a vertical antero-posterior direction. A portion of the cauda equina is seen in the vertebral canal. The bodies of the 2nd and 3rd vertebræ show caseous necrosis anteriorly, and in front of the upper four bodies is a multilocular abscess cavity with thick opaque walls composed of tuberculous granulation tissue.

M.N. 601.

VERTEBRÆ (Dorsal): Caries. Anchylosis. Tuberculosis. 93 : 56 · 1
93 : 55 · 2
93 : 24 · 1

In the uppermost centrum there is a carious cavity and a patch of caries on the posterior surface. A large carious cavity is seen between this body and that of the next vertebra. The cavity opens into the spinal canal. In the second vertebra of the specimen a small rarefied patch is seen in the body. The 3rd and 4th bodies of the specimen are completely anchylosed, the depth of the combined mass anteriorly is $\frac{3}{4}$ in., and posteriorly $1\frac{3}{8}$ in. The laminæ and the articular process of the lowest two are anchylosed. On the anterior surface of the bodies there is a mass of bone with a smooth surface anchylosing all four vertebræ together.

M.N. 602.

VERTEBRÆ (Dorsal), RIBS: Tuberculosis. Caries. Anchylosis. 93 : 56 · 1
93 : 24 · 1
93 : 55 · 2

The anterior surface of the bodies is very rough and carious, and in the lowest body a sequestrum is almost completely separated. There are small masses of new bone at the sides of the bodies. All the five bodies are anchylosed together. Two ribs remain *in situ*, owing to the anchylosis of their heads to the bodies of the vertebræ. The ribs are inclined upwards at an angle of about 40°.

M.N. 609.

VERTEBRÆ. 6th, 7th, 8th, 9th, 10th, 11th, 12th DORSAL; 1st and 2nd LUMBAR: Caries. Anchylosis. 93 : 56 · 1
93 : 24 · 1
93 : 55 · 1

In all the bodies there are small carious cavities, some opening externally. The spine is curved with the concavity forwards. The 8th and 9th dorsal are completely anchylosed, as regards both the bodies and the arches. The depth of the two bodies so anchylosed is $1\frac{3}{8}$ in. posteriorly and $\frac{7}{8}$ in. anteriorly. The 11th and 12th dorsal are firmly and completely anchylosed. Posteriorly the depth of the combined vertebræ is $1^{13}/_{16}$ in. and anteriorly $1^{6}/_{16}$ in. On the surfaces of the bodies of the dorsal vertebræ there is a slight amount of new subperiosteal bone.

M.N. 617.

DORSAL VERTEBRÆ: Caries. Formative Periostitis. Anchylosis. 93 : 56 · 1
93 : 55 · 2
93 : 24 · 1
87 : 55 · 1

The bodies form one mass in depth, 1 in. anteriorly and 2 ins. posteriorly. The site of the intervertebral disc is covered by a round projecting ridge of new bone, dense in texture and extending over the surface of the vertebræ as strands of bony tissue. The centre of the upper body shows well-marked caries. The two bodies are firmly anchylosed by the newly-formed bone between the bodies and between the adjacent zygapophyses.

M.N. 739. Mr. Southam.

SPINE: Caries. 93 : 56 · 1
93 : 24

The specimen shows the lower dorsal and lumbar vertebræ. About the middle of the specimen there is an acute kyphosis which has arisen from absorption of the bodies of the vertebræ at this point. Occupying the angle of curvature is a mass of caseous debris. The periosteum on the anterior aspect of the bodies is separated from the bone. The anterior surface of several of the bodies is considerably eroded, and in the cavities so produced is lodged a quantity of caseous debris. There is comparatively little compression of the spinal cord, but there is tuberculous inflammation of the dura mater.

M.N. 2743. Mr. Thorburn.

DORSAL VERTEBRÆ, RIBS, AND TISSUES ADJACENT TO BODIES OF VERTEBRÆ IN FRONT. SPINAL CORD: Caries. Abscess. 93(04·7):56·1 93(04·7):54·5

Laminectomy was performed for caries with paraplegia and great pain, but death occurred from exhaustion a few days later. The probe enters a large abscess (of which the anterior wall is removed) which was situated in front of the vertebræ and was penetrating to the vertebral canal and pressing upon the theca.

VERTEBRÆ: MALIGNANT TUMOURS.

M.N. 3469. D.B. 4642. Dr. Marsden.

VERTEBRÆ: Secondary Carcinoma. 93:66·4

The bodies of the vertebræ are, to a great extent, replaced by a loose pultaceous tissue, which exhibits many fissures and spaces. The remnant of bony tissue is situated posteriorly. The cartilages are unaffected, and are covered by a thin layer of bone. On its outer aspect the lower vertebra shows, posteriorly, the erosion of the bone.

Microscopically, the growth was composed of columnar cells, which were arranged in an acinous form, the lumen of the acini being filled with contents of a mucoid nature.

The specimen was obtained from a male, aged 35 years, who complained of pain and emaciation. Persistent pain in the back was followed by loss of reflexes and paralysis of the lower limbs. At the autopsy there were found growths in the stomach, liver and retro-peritoneal glands.

VERTEBRÆ: GENERAL NUTRITIONAL DISEASES.

M.N. 516.

LUMBAR VERTEBRÆ: Osteo-Arthritis. 93:85·2

The two lumbar vertebræ are united by masses of ossification which have occurred in the situation of the ligaments uniting the various joints. There is no sclerosis of bone.

M.N. 598.

CRANIUM. VERTEBRÆ 1st and 6th CERVICAL: Formative Periostitis and Ostitis. Osteo-Arthritis. 93:85·2 93:24·1 93:55·1

The cranium is fixed in a position of considerable extension on the spine. The bodies of the cervical vertebræ and the anterior arch of the atlas are anchylosed together. The anterior arch and lateral masses of the atlas are anchylosed to the occipital bone and to the odontoid process. The transverse processes and the laminæ of the 2nd to the 6th cervical are joined together by newly-formed bone.

M.N. 599.

OCCIPITAL BONE. ATLAS: Formative Periostitis. Condensing Ostitis. Osteo-Arthritis. 93:85·2 93:24·1

The atlas is anchylosed to the occipital bone through almost the whole of its circumference, leaving only a small foramen anteriorly. A portion of the left half of the posterior arch is deficient. Between the right lateral mass and the transverse process is a ridge of new bone. The left lateral mass is much deformed, being surrounded by osteophytic new bone which is most abundant externally, and internally it forms a pointed process. The original articular surface is destroyed, except for a small part anteriorly, and is replaced by a rough and pitted surface marked by concentric eburnated ridges.

M.N. 603. Mr. Turner.

VERTEBRÆ, NINE DORSAL: Formative Periostitis. Osteo-Arthritis. 93:85·2 93:55·1 93:24

The normal curvature of the dorsal spine is somewhat exaggerated. The whole of the anterior and right lateral aspects of the bodies are covered by a deposit of new bone anchylosing the nine vertebræ together. The laminæ and articular processes are all united by bone.

M.N. 604. Mr. Turner.

VERTEBRÆ. DORSAL: Formative Periostitis and Ostitis. Osteo-Arthritis. 93:85·2 93:55·1 93:24·1

The bodies of the six dorsal vertebræ are anchylosed together by a deposit of new bone in the form of two strips, which diverge from one another from above downwards. The larger strip passes towards the right lateral aspect of the bodies, and runs the whole length; the smaller passes to the left lateral aspect, and only reaches the 5th vertebra. Opposite each inter-central space, and extending laterally, are large prominent masses of bone continuous with the strips. The prominences are hollow.

M.N. 605. Mr. Turner.

VERTEBRÆ. LOWER SIX DORSAL AND FIVE LUMBAR: Osteo-Arthritis, 93:85·2 93:24·1

Along the line of, and apparently continuous with, the anterior common ligament, a layer of new bone has been deposited, which is best marked on the right side in the case of the bodies of the dorsal vertebræ, and on the left in the case of the lumbar vertebræ, but extending more or less over the whole anterior surface. Opposite the inter-vertebral discs this new bone forms somewhat prominent sharp ridges, the adjacent parts being in some cases firmly ankylosed. A similar formation of bone is seen surrounding the articulations of the zygapophyses, especially of the lumbar vertebræ.

M.N. 606.

VERTEBRÆ. DORSAL: Formative Periostitis. Osteo-Arthritis. 93:85·2 93:55·1 94:24·1

The lower and upper borders of the two lower dorsal vertebræ are continued forwards, forming together a conical projection of dense bone about 1·3 c.m. in height. The two projections are superficially anchylosed together at the summit of the cone, and on its left side.

M.N. 607

VERTEBRÆ. 4th and 12th DORSAL, 1st and 2nd LUMBAR: Formative Periostitis. Osteo-Arthritis. Kyphosis. 93:85·2 93:55·1 93:24·1

The spine presents a marked antero-posterior curvature with the concavity forwards, and some lateral curvature. All the bodies are united together by osteophytic bone which has a dense superficial layer. All the laminal and articular processes except the 4th—6th dorsal are united by bone. Some of the articular surfaces for the ribs are deformed by new bone formation, and on the left side a small piece of an anchylosed rib is seen. The tips of the transverse and spinous processes are thickened, and some of the tips of the spinous processes are united together by bone.

M.N. 608. Mr. Turner.

VERTEBRÆ. SIX DORSAL. RIBS: Formative Periostitis. Osteo-Arthritis. 93:85·2 93:55·1 93:24·1

The right lateral aspect of the bodies is covered by a deposit of new bone presenting swellings opposite each inter-central space and marked by grooves for the intercostal arteries. Two ribs are anchylosed at their heads to the bodies on the right side. The articular facets for the heads of the ribs on the left side are distorted by new osteophytic bone deposited around their margins.

M.N. 611.

VERTEBRÆ. FIVE DORSAL. ONE RIB: Rarefying Ostitis. 93 : 85 · 2
Formative Periostitis. Osteo-Arthritis. 93 : 24 · 1
88 : 42 · 9

The spine has an antero-posterior and a lateral curvature, with the concavity looking forwards to the right. Ossification has taken place along the anterior common ligament, and has resulted in a thick strip of new bone running the whole length of the specimen, with transverse ridges opposite each inter-central space. All the laminal and articular surfaces are more or less completely anchylosed together. A rib on the left side is anchylosed, both at its head and at its tubercle, to the spine. The bony tissue of the lower vertebræ is rarefied.

M.N. 614.

DORSAL VERTEBRÆ: Osteo-Arthritis. 93 : 85 · 2
93 : 24 · 1

The specimen consists in four dorsal vertebræ. The line of the vertebræ indicates marked curvature with concavity to the right, and on this side there has developed a band of ossification in the ligament. There is no disease of the bodies of the vertebræ, nor of the intervertebral discs. The joints between the zygapophyses are anchylosed.

M.N. 615.

VERTEBRÆ. FOUR LUMBAR: Osteo-Arthritis. 93 : 85 · 2
93 : 55 · 1

A layer of dense new bone has been deposited on the surface of the bodies of the vertebræ, best marked along the lateral aspects, simulating in its formation the strands of the anterior common ligament, and forming opposite each inter-vertebral disc a large tumour-like expansion. The articulations of the zygapophyses show a similar formation, leading in some cases to complete anchylosis.

M.N. 619. Mr. Turner.

VERTEBRÆ. RIB. SACRUM COCCYX. OS INNOMINATUM: Formative Ostitis. Anchylosis. Osteo-Arthritis. 93 : 85 · 2
93 : 55 · 1
93 : 24 · 1

The spine presents an almost uniform concavity forwards. All the bodies are to a greater or less extent lipped at their margins, causing in the cervical region slight rotation to the left. Deposit of new bone has taken place in the anterior common ligament, resulting in anchylosis of the 3rd, 4th and 5th dorsal, the 6th, 7th, 8th, 9th, 10th and 11th dorsal, the 1st and 2nd lumbar, the 4th and 5th lumbar and the sacrum. The edges of some of the costal articulations are lipped, especially the 9th and 10th on the right side, resulting in anchylosis of the 10th rib to the 9th and 10th vertebræ. Some of the inter-articular joints are affected, and in a few anchylosis has resulted. There is irregular osteophytic deposit on the crest of the ilium, the margins of the tuberosity of the ischium, and along the rim of the acetabulum; part of the articular surface is destroyed, exposing the cancellous spaces.

M.N. 626.

VERTEBRÆ. TWO LUMBAR. SACRUM. OS INNOMINATUM (LEFT): Formative Periostitis. Osteo-Arthritis. 93 : 85 : 2
93 : 55 · 1
88 : 42 · 9

The 4th and 5th lumbar vertebræ are anchylosed together and to the 1st piece of the sacrum by a deposit of new bone over the anterior and lateral aspects of the bodies. The new bone forms a transverse prominence between the 4th and 5th lumbar vertebræ, and on the left side of the sacro-lumbar joint is a very large prominence 3·5 c.m. in diameter. The prominences are hollow opposite the intercentral spaces. The upper half of the anterior sacro-iliac ligament is completely ossified. Osteophytic new bone exists as nodules on the rami of the ischium and pubis, and as a ridge along the iliac crest.

M.N. 700.

VERTEBRÆ. CERVICAL, DORSAL, LUMBAR: Lateral Curvature, Scoliosis, Rickets. 93:86.1 93:24

The spine presents three curvatures; one, to the right, which is very marked, occupies the greater part of the dorsal region. The other two, to the left, are smaller, and are found in the upper dorso-cervical, and in the lumbar region. The vertebræ are almost all rotated, and those in the mid-dorsal region through almost 90°. The spines present less marked but corresponding curves. The bodies of the vertebræ in the most curved parts are deformed so that the side towards the concavity is not so thick as the other. The bones are lighter than normal.

M.N. 701.

VERTEBRÆ. CERVICAL, DORSAL, LUMBAR: Curvature. Rickets. 93:86.1 93:24 95:55.1

There is a marked curvature of the dorsal spine to the right. The curve is especially marked about the 5th and 6th dorsal bodies, and in this region the antero-posterior curve of the spine is exaggerated. There are compensatory curves to the left in the upper dorsal and cervical, and in the lumbar regions. The spinous processes present a correspondingly curved line, but in a less degree. Some of the joints are anchylosed. On the right side of the 1st and 2nd lumbar vertebræ is a mass of osteophytic bone causing anchylosis of the inter-central joint.

M.N. 702. Mr. Turner.

VERTEBRÆ. DORSAL, LUMBAR: Curvature. Rickets. 93:86·1 93:24·1 93:55·1

There is a lateral curvature of the dorso-lumbar spine so marked that the direction of the dorsal spine forms less than a right angle with the upper lumbar spine, and the plane of the superior articular surface of the 11th dorsal is at right angles with that of the lower articular surface of the 4th lumbar. A portion of the compensating curve of the lower lumbar bodies

is shown by the 3rd and 4th lumbar. The 11th and 12th dorsal, and the 1st and 2nd lumbar bodies are much thicker on the right than on the left, especially the 12th dorsal and 1st lumbar. The 3rd lumbar is very slightly thicker on the right, but the 4th is decidedly thicker on the left side. The spinous processes present only a comparatively slight curvature. The joints between the articular processes of the 11th and 12th dorsal and the 1st, 2nd and 3rd lumbar are anchylosed, and present osteophytic new bone around them on the left side.

M.N. 703.

VERTEBRÆ DORSAL. LUMBAR: Curvature. 93:86·1
93:24

The dorsal vertebræ are rotated to the right, and the lumbar to a less degree to the left, producing a curve in the line of the bodies convex to the right in the dorsal region and to the left in the lumbar. The tips of all the spinous processes are in an almost straight line.

M.N. 707.

SKULL, SPINE, SACRUM, COCCYX, STERNUM, RIBS: Curvature. Formative Ostitis. Osteo-Arthritis. 93:85·2
93:24

The whole of the spine presents a lateral curvature to the right without rotation of the bodies. The right chest is more capacious than the left, and is somewhat flattened posteriorly. The left is flattened anteriorly. Some of the bodies of the vertebræ are slightly lipped at their margin by osteophytic bone.

STERNUM: SPECIFIC INFLAMMATIONS.

M.N. 517.

STERNUM: Abscess Cavity. Expansion. Condensing 94 : 56 · 3
Ostitis. Syphilitic. 94 : 55 · 4
94 : 55 · 1

The third segment of the sternum is thicker than normal from expansion. The anterior surface opposite the third inter-costal space presents a roughly circular opening 2·5 c.m. in its greatest diameter. This opens into a large cavity extending towards the left for a distance of 3 c.m. Two pillars of bone are in the cavity, one partially fusing with the left wall, and the other, which is free, is cut by the section. A portion of the roof is formed by membrane. The whole of the meso-sternum is denser than normal, especially near the cavity.

RIBS: CONGENITAL ABNORMALITIES.

M.N. 3015. Mr. Wright.

SUPERNUMERARY CERVICAL RIB. 95 (03) : 13

The upper end of the specimen shows the articular surface. The length of the specimen has been somewhat diminished by a fracture which occurred during removal.

The patient was a girl aged 1 year.

M.N. 3018. Mr. Wright.

SUPERNUMERARY CERVICAL RIBS. 95 (03) : 13

The specimen consists of two supernumerary ribs from the cervical region. One shows a well-marked articular surface. The ribs were broken during removal.

RIBS: MECHANICAL LESIONS.

M.N. 442. Dr. Bury (Pendleton).

RIB: Fracture. 95 : 21 · 1
95 : 55 · 1
95 : 61

Across the middle of the rib a fracture had taken place, and was in the process of being healed. On the internal surface of the rib a rounded mass of callus has been thrown out. To a less extent the same formation is seen on the external surface.

Microscopic examination of an adjacent rib in a similar condition revealed the presence of fibrillated cartilage of an embryonic type, which had been formed by the tissues in the normal course of repair.

M.N. 741. Mr. Turner.

RIBS. VERTEBRÆ: Fracture. 95 : 21 · 1

All the ribs, except the 1st, 2nd and 11th, present one or more united fractures with a varying amount of excess of callus. The union has taken place in good position. Attached to the inner surface of the 5th rib, for about half its length, is a mass of bone somewhat resembling a rib in shape.

M.N. 742.

RIBS; Fracture. 95 : 21 · 2

The fracture, slightly in front of the angle, is firmly united, with some displacement inwards of the posterior end of the anterior fragment.

RIBS: BENIGN TUMOURS.

M.N. 719.

VERTEBRÆ. RIBS: Exostosis. 95 : 63 · 4
95 (85) : 42 · 9

The two ribs (1st and 2nd left) are joined together by a bar of bone passing from near the anterior end of the first, forwards and inwards to the anterior end of the second. The anterior end of the first rib is enlarged, and the cartilage partly ossified into a large bony mass.

M.N. 722. D.B. 538. July, 1887.

RIB: Exostosis. 95 : 63 · 4

On the first rib on the right side, at its junction with the sternum, is a small osteoma projecting anteriorly.

M.N. 3542. Mr. Thorburn.

RIB: Chondroma. 95 : 63 · 3

The chondroma sprang from the third rib, at its junction with the costal cartilage. The tumour has a very nodular surface, and is composed of lobules of hyaline cartilage.

The patient was a child aged 14 years, and the tumour had been noticed for 6 months. There were no symptoms. The growth was removed together with the portion of rib from which it sprang.

RIBS: MALIGNANT TUMOURS.

M.N. 3210. D.B. 4434. May 15, 1905. Mr. Burgess.

RIBS: Sarcoma. 95:65

A sarcoma can be seen extending along the middle rib of the three for a distance of about 4 inches. A portion of the growth has been removed to show its structure. The tumour has completely destroyed the bone, and is made up of an opaque friable tissue which is much discoloured from hæmorrhages, and shows the section of the large blood-vessels. On the inner surface the tumour is somewhat prominent, but the pleura remains intact.

The patient was a male, aged 18 years. There was a history of 18 months' growth. The specimen was obtained in the post mortem room.

M.N. 3223. D.B. 4421. Mr. Platt.

RIBS: Chondro-Sarcoma. 95:65 (63·3)

The chondro-sarcoma has enveloped the 9th and 10th ribs close to their junction with the sternum, and forms a rounded mass, which projects equally on the outer and inner aspects of the costal wall. The outer surface is irregular, and shows a large number of small elevations. The surface of section displays a somewhat whitish hyaline cartilage.

The patient was a man, aged 38 years. The growth had been noticed 9 months, but had given rise to no symptoms. The tumour was removed May 21, 1904.

M.N. 3639. Jan. 22, 1903. Mr. Wright.

RIB: Periosteal Sarcoma. 95:65

One of the two ribs is completely encircled by new growth which has sprung from the periosteum. On section the growth is white and homogeneous in structure. Towards the pleural surface it projects as a lobulated mass constricted at the base.

Microscopic examination showed the growth to be a sarcoma.

The patient was a man, aged 26 years, who had noticed rapid enlargement of the rib for 3 months. The growth extended from the 8th to the 10th ribs in the left axillary line. Portions of these ribs were resected wide of the growth and excised with the soft structures, after reflecting the skin which was not involved. The pleural cavity contained a large amount of serous fluid. Secondary deposits were present in the pleura. The lung was collapsed, The operation took place Jan, 22, 1903. When he left the Hospital a large sinus of the left pleural cavity persisted. His general condition had improved.

RIBS; GENERAL NUTRITIONAL DISEASES.

M.N. 676.

RIB AND COSTAL CARTILAGE: Rickets. 95 : 86 . 1
95 : 24

The swelling at the junction of bone and cartilage is characteristic of rickets, and the cut surface shows the irregular line of ossification.

M.N. 677.

RIBS AND COSTAL CARTILAGES (Five); Rickets. 95 : 86 · 1
95 : 24

A rounded swelling is seen at each costo-chondral junction. This is more prominent on the inner than on the outer aspect, and the series forms a typical "rosary."

M.N. 693.

RIB (7th) OF CHILD (7 months): Rickets. 95 : 86 · 2
95 : 41
95 : 24

The shaft is much distorted. The compact bone has almost entirely disappeared, and the cancellous bone is represented by an exceedingly fine spongy tissue. The costal cartilage is apparently normal, and the bone adjacent to it shows the rarefaction to a much less extent than the rest of the rib.

M.N. 2893. D.B. 4221. P.M.S. 385. July 2, 1904. Mr. Southam.

STERNUM AND RIBS: Rickets. 95 : 86 · 1
95 : 24

The specimen shows the sternum and anterior portions of the ribs. There are well-marked nodular enlargements at each costo-chondral junction on both sides. The middle ribs are the most affected. The enlargements are small and firm, and more prominent on the internal than on the outer aspect.

The patient was a child, aged 18 months. There were other signs of rickets in the body. Death resulted from fracture of the skull.

BONES OF THE UPPER EXTREMITY: CONGENITAL AND DEVELOPMENTAL ABNORMALITIES.

M.N. 420. Mr. Thomas Turner.

HUMERUS. ULNA (LEFT): Aplasia of Ulna. Anchylosis of Elbow-Joint. 96·6:17·1 96·5:24·1

The larger bone is the left humerus of an adult. The upper end and shaft of the bone are normal, but the lower end is disproportionately small. The internal condyle, although small, is well developed, and presents a distinct epicondyle. The external condyle is however absent, and there is consequently no facet for articulation with the radius. At the root of this condyle there projects forwards a nodule of very porous bone, which has been broken off; the portion remaining is about half the size of a filbert and appears to represent a part of an ill-developed and anchylosed radius. The ulna is about 10 c.m. in length. Its upper end is almost of normal size and presents well-marked olecranon and coronoid processes. The shaft and lower end are small, and have an irregular nodular surface. A styloid process can be clearly made out at the lower end, and there is here a well-marked articular facet on the anterior aspect, but no articular facet for the radius. The elbow-joint is anchylosed by bone in a position of slight over-extension.

M.N. 420A.

HUMERUS. ULNA (RIGHT): Aplasia. 96·6:17·1 96·5:24·1

The humerus is from the right arm of an adult—probably the same case as specimen 420. The upper end of the shaft is well developed. The lower end is small, the condyles being less prominent than normal, and consisting of very spongy bone. The outer condyle ends in an irregular bony projection at the root of which is a small foramen, this projection probably representing an undeveloped radius. The ulna is about 12·5 c.m. long and has a marked curve, concave forwards. The olecranon and coronoid processes are well defined but not prominent; between them on the outer aspect is a deep pit. The lower end has a very well-defined styloid process and a large triangular facet on its anterior aspect. The want of development of the bone chiefly implicates the shaft. The elbow-joint is anchylosed in a position of extension.

BONES AND JOINTS OF THE UPPER EXTREMITY: MECHANICAL LESIONS.

M.N. 620.

SCAPULA, HUMERUS (LEFT): Formative Ostitis. Anchylosis. 96·3:24.1

The head of the humerus is completely anchylosed to the scapula. The line of union is just distinguishable in the section.

M.N. 621.

HUMERUS, ULNA, RADIUS: Fracture. Dislocation. Anchylosis: 96·4:21·2
96·6:23·1
87:55·1
96·5:24·1

A well-united transverse fracture of the humerus is seen immediately above the condyles. The olecranon and coronoid fossæ communicate by a large round aperture. The ulna is dislocated downwards, and is anchylosed to the humerus in a position of almost complete extension. The head of the radius is dislocated outwards slightly, and is anchylosed to the humerus in extreme pronation.

M.N. 624.

HUMERUS, ULNA: Dislocation. Anchylosis. 96·5:23·1

The ulna is partially dislocated inwards, and is firmly anchylosed to the humerus in a position of rectangular flexion. The articular surfaces for the radius are destroyed. On the external condyle are a few small osteophytes.

M.N. 625.

HUMERUS, ULNA: Dislocation, Formative Ostitis, Anchylosis. 96·5:23·1

The ulna is dislocated downwards and forwards, so that the tip of the olecranon touches the trochlear surface. The bones are firmly united by three bars, of which the anterior one is the thickest. The joint surfaces are destroyed.

M.N. 645.

HUMERUS: Fracture. 96·4:21·2
96·3:55·3

An united fracture of the greater tuberosity of the humerus with displacement downwards and backwards. The head shows the absorption and eburnation of osteo-arthritis.

M.N. 749.

CLAVICLE (RIGHT): Fracture. 96·1:21·2

A fracture slightly to the outer side of the middle of the bone. The outer fragment is displaced backwards and is firmly united to the inner.

M.N. 750. Dec., 1888.

CLAVICLE: Fracture. 96·1:21·2

The bone has been fractured near its middle. The outer fragment is displaced backwards and inwards and slightly upwards. There is firm bony union.

M.N. 751.

HUMERUS: Fracture. 96·4:21·1

An united fracture of the greater tuberosity of the humerus. The bone is much lighter than normal.

M.N. 752.

HUMERUS: Fracture. 96·4:21·1
96·4:24·1
96·4:55·1

A fracture just below the surgical neck of the humerus. The upper fragment is tilted somewhat inwards and backwards, and thus forms an obtuse angle with the shaft. The fracture is firmly united, but the upper fragment is rarefied. There is marked roughening of the surface from new bone formation.

M.N. 754.

HUMERUS: Fracture. 96·4:21·2
96·4:55·1

A badly united fracture in the upper half of the shaft. The continuity of the medullary cavity is almost restored. There is a considerable amount of new bone formation in the region of the fracture.

M.N. 755.

HUMERUS: Fracture. 96·4:21·2

A slightly oblique fracture in the middle of the shaft. The upper fragment is displaced outwards and slightly forwards. The lower fragment is drawn up a short distance to the inner side. The two are firmly united.

M.N. 757.

HUMERUS: Fracture. 96·4:21·2
96·4:55·1
96·5:55·3

An oblique fracture of the lower end of the shaft, running downwards and outwards. The lower fragment is displaced inwards and rotated so that the internal condyle is considerably higher than the external. The fragments are firmly united by callus which is especially abundant on the inner side. The lower articular surfaces are rough.

M.N. 761. Mr. Turner.

RADIUS. ULNA: Fracture. 96·6:21·2
96·6:24·1

A fracture of the shafts of both bones just below the middle, has taken place. The radius is in a position between pronation and supination. The upper ends of the lower fragments are displaced inwards and backwards. Complete bony union has resulted, with anchylosis, at the seat of the fracture.

M.N. 762.

RADIUS. ULNA: Fracture. Anchylosis. 96·6:21·2
96·6:24·1

An oblique fracture has occurred in the upper third of both bones, running downwards, outwards, and backwards. The lower fragments are drawn upwards slightly, and form an angle with the upper fragments, opening forwards. The lower ends of the upper fragments are approximated, and anchylosis of the two bones has resulted at the level of the fracture.

M.N. 763.

RADIUS (RIGHT): Fracture. 96.6;21·2
96·6:55·1

An oblique fracture of the middle of the shaft running downwards and inwards. The lower fragment is considerably pronated and drawn upwards to the outer side of the upper fragment. The fracture is firmly united by an excessive amount of callus.

M.N. 764.

RADIUS (LEFT): Fracture. 96·6:21·2

An united oblique fracture of the shaft has occurred. The lower fragment forms with the upper an obtuse angle opening backwards, and is drawn slightly up in front.

M.N. 765.

RADIUS: Fracture. 96·6:21·1
96·6:24

A well-united transverse fracture in the lower third of the shaft, with slight angular deformity.

M.N. 766. Prof. Young.

RADIUS OF A CHILD: Fracture. 96·6:21·3

An oblique fracture has occurred at the junction of the lower and middle thirds of the left radius. The fracture has apparently taken place with the radius in the position of semi-pronation, and the lower fragment is riding in front of the upper. The ulna is intact, and the only part of it seen is its upper extremity. The bones at the point of fracture have been sawn through.

M.N. 767. Mr. Southam.

RADIUS: Colles's Fracture. 96·6:21·3

The transverse fracture is seen on the anterior aspect of the lower end of the radius. There has been very little distortion, but the lower fragment has been displaced backwards.

The patient was a child 7 years old.

M.N. 839. Mr. Bradley.

SHOULDER JOINT: Subcoracoid Dislocation. 96·3:23

The head of the humerus has been dislocated and occupies a position in front of the glenoid cavity, under the coracoid process. A deep groove has been formed in the head of the humerus at the point where it comes in contact with the anterior edge of the glenoid fossa. This was due to the accident, a piece of the humerus being chipped out. The long tendon of the biceps muscle is seen stretching across the joint area.

The patient, a man aged 35, fell from a scaffolding at the Infirmary. (*Brit. Med. Journal*, 1877, vol. i., p. 544.)

M.N. 840.

CLAVICLE, SCAPULA, HUMERUS: Dislocation, Formative Ostitis. 96·3:23 96·4:55·1

A subcoracoid dislocation of the humerus has occurred. A new concave articular surface has been formed on the anterior surface of the coracoid process and neck of the scapula. Posteriorly is a deposit of new bone, forming a partial sheath for the upper third of the bone. The head of the humerus retains its shape. The upper portion of the shaft, where surrounded by the bony sheath, has a rough surface.

M.N. 845.

96·4:28

Portion of the upper part of the shaft of the humerus, and a bullet which had lodged therein.

M.N. 949. Mr. E. Lund.

ULNA (LEFT): Fracture. 96·6:21

Fracture of the styloid process has occurred.

M.N. 2705. D.B. 2666. Nov. 15, 1894. Mr. Wright.

RADIUS and ULNA: Fracture, 96·6:21·3

On the radius, above the junction of the middle and lower thirds, there is a complete transverse fracture, and along the outer border of the bone, and proceeding to within an inch of the lower epiphyseal line, there is a longitudinal fracture involving the compact bone. The lower termination of the fracture forms a flat spicule of bone. On the ulna, within an inch and a half of the lower epiphysis, is a somewhat oblique fracture, and from this a linear fracture runs upwards, along the outer border, for 2 inches, and another, shorter one, for half an inch along the inner border.

BONES AND JOINTS OF THE UPPER EXTREMITY: RETROGRESSIVE DISORDERS.

M.N. 393. D.B. 966. Mr. Stocks.

ULNA: Necrosis. Sequestrum. 96·6:44·7

The specimen consists of a large portion of the shaft of an ulna, which was shed as a sequestrum. The larger part of the surface is smooth; but at the ends there has been erosion of the superficial layers, and the bone shows the bevelling and sugar-loaf spicules characteristic of a sequestrum.

M.N. 429. Prof. Charcot.

SCAPULA. HUMERUS OF THE RIGHT SIDE: Charcot's Joint Disease. 96·3:47 96·2:55·1 96·4:55·1

Scapula:—The mass of bone surrounding the glenoid cavity has been absorbed. The upper portion of the axillary border is slightly concave, and at the upper and lower end of the concavity the bone has a porcellaneous character, most marked above. The concavity is about 1 in. in length, and commences immediately below the root of the coracoid process. There is a deposit of new bone, forming a thick ridge, beginning above at the anterior border of the coracoid process and passing in a curved direction downwards and outwards on the ventral surface of the scapula till it meets the axillary border. Its lower end is continued into a small conical process. There is another deposit of new bone of semilunar shape on the lower aspect of the spine, about 2 in. in length, forming a deep concavity.

Humerus:—The upper epiphysis is in the form of an irregular mass, generally flattened, and is quite loose. Except for this loose piece the humerus has disappeared down to a little distance below the surgical neck. The upper end is concave from side to side and convex from before backwards, and the surface is porcellaneous. There is some periosteal new bone in the upper third of the shaft.

M.N. 434.

RADIUS (LEFT): Necrosis. 96·6:44·7

The whole specimen, consisting of the upper half of the shaft of the radius of a young subject, is necrosed. The necrosis has involved the whole thickness of the shaft in the distal half of the specimen, but proximally the outer portion is missing.

M.N. 505. Mr. C. E. Richmond.

PHALANX: Necrosis (following Paronychia). 96·8:44·7

A sequestrum, consisting of the whole of the phalanx, excepting the proximal epiphysis which has become separated.

M.N. 507.

FINGER: Necrosis of Phalanx. 96·8:44·4

The finger has been incised along the dorsum to expose the phalanges. The proximal phalanx is almost destroyed by necrotic changes, but the distal articular cartilage is intact. The soft parts are thickened by inflammatory changes, and the periosteum of the distal phalanges is also thickened. This condition followed a whitlow.

BONES AND JOINTS OF THE UPPER EXTREMITY: INFLAMMATORY LESIONS.

M.N. 449.

HUMERUS (LEFT): Formative Periostitis. 96·4(87):55·1

The lower end of the bone is covered by a porous coral-like layer of new bone. This has replaced the articular cartilages.

M.N. 451.

HUMERUS (RIGHT); Formative Periostitis and Ostitis. 96·4:55·1
Caries. 87:55·1

The lower half of the shaft is much enlarged from a deposit of new spongy bone around the whole circumference. The surface is fairly smooth, though finely pitted. Scattered over the diseased portion are carious excavations, varying up to $\frac{1}{2}$ in. in length. One or two are very deep, and are probably cloacæ. The olecranon and coronoid fossæ communicate by two small holes.

M.N. 453.

HUMERUS: Formative Periostitis. Condensing Ostitis. 96·4:55·1
87:55·1

The bone is increased in weight. The shaft is much thickened by deposit of dense new bone, which is coarsely grooved in many parts.

M.N. 623.

HUMERUS, ULNA (RIGHT): Necrosis. Formative Ostitis. Condensing Ostitis. Anchylosis. 96·6:55·4
96·6:55·1
96·5:24·1

The bones are much increased in weight. The humerus presents thickening of the internal condyle with new bone, which also is deposited on the capitellum, forming on its inner side a curved ridge which completes a groove into which the head of the radius entered. The humerus is firmly anchylosed to the ulna. The ulna has a smooth surface and is much thickened by the formation of dense bone along the whole length of the shaft. At the upper end is a cavity opening externally and also into the joint. Nearly half way down the posterior surface is a deep cavity $\frac{1}{2}$ in. in length. The lower articular facet is deformed by osteophytic new bone.

BONES AND JOINTS OF THE UPPER EXTREMITY: SPECIFIC INFLAMMATIONS.

M.N. 452.

HUMERUS (LEFT): Periostitis. Ostitis. Tuberculosis. 96·4:56·1
96·4:55·2
96·4:55·1

The disease affects the lower half of the posterior surface of the humerus and the external condyle especially, and slightly the lower part of the anterior surface. There is a deposit of subperiosteal new bone over the greater part of the affected area. The deposit is thickest $2\frac{1}{2}$ inches from the lower end on the posterior surface. Immediately above the olecranon fossa is an irregular depression, partly due to loss of bone substance, and partly to the new bone. The surface of the diseased area is rough, except anteriorly.

M.N. 454.

ULNA (LEFT): Rarefying Ostitis. Caries. Formative Periostitis and Ostitis. Tuberculosis. 96·6:56·1
96·6:55·2
96·6:55·1

The bone is much heavier than normal, and is rough in its upper two-thirds. There is a mass of new bone on the posterior surface. Above this point new bone has been deposited everywhere, except on portions of the posterior surface, which is very irregular, and presents excavated patches of caries. Slight bending of the shaft has occurred at the junction of the middle and lower thirds. The greater and lesser sigmoid notches present bare carious bone, except on the olecranon and coronoid processes.

M.N. 540.

HUMERUS. ULNA (LEFT): Tuberculosis. Caries. Osteophytes. 96·5:56·1
96·6:55·4
96·4:55·1

Humerus:—The lower portion of the specimen shows large numbers of spicules of osteophytic new growth. The articular surface is entirely carious. The coronoid and olecranon fossæ communicate by a hole $\frac{1}{4}$ in. in diameter.

Ulna:—The whole of the surface of the upper end is covered with spicules of new bone, with the exception of the joint surfaces which are carious and in part have disappeared altogether. Opening into the joint are several large carious cavities which make the bone above the lower end of the coronoid a hollow shell.

M.N. 541. Mr. Boutflower.

EXTREMITIES OF THE BONES FORMING THE ELBOW-JOINT: Tuberculosis. 96·5:56·1 96·6:44·6

The cartilages are eroded, especially in the case of the ulna, and least in the case of the radius. The bones show well-marked erosion by caries of tuberculous origin. There are large excavations of the upper end of the ulna.

M.N. 543.

RADIUS. ULNA (RIGHT): Tuberculosis, Rarefying Ostitis. Caries. 96·6:56·1 96·6:55·2

The entire ulna and the upper third of the radius.

The upper curve of the radius is somewhat exaggerated. The whole fragment is porous, and the lower end of the specimen is carious, with numerous small patches of caries on the shaft. The articular surfaces are normal.

M.N. 544.

LOWER END OF RADIUS AND ULNA, CARPUS, PHALANGES: Tuberculosis. 96·7:56·1 96·8:44

There is almost complete disorganisation of the wrist, carpal and carpo-metacarpal joints. The carpal bones have been widely destroyed by tuberculous caries, and the heads of the 3rd and 4th metacarpals have disappeared entirely. The cartilage at the lower end of the radius has been also destroyed.

M.N. 546. Dr. Martin.

HAND: Tuberculosis originating in the Carpus. 96·8:56·1

The whole hand is much swollen, especially in the region of the carpus and metacarpus. The skin is smooth from distension, and is dotted over with the irregular openings of sinuses on both palmar and dorsal aspects. The index finger is absent.

M.N. 595.

FIRST METARCARPAL BONE AND PHALANGES: 96·8:56·1
Caries. Tuberculosis. 96·8:55·2

Of the metacarpal bone only the distal extremity remains, and presents a carious, irregular upper end. The first phalanx at its proximal end shows caries, the articular cartilage having been destroyed.

M.N. 2279. Mr. Stanmore Bishop.

ELBOW JOINT: Tuberculosis. 96·5:56·1

This specimen is the left arm of a child. The soft tissue and bone, and the elbow joint, show complete disorganisation, and the formation of a large amount of new tissue. On microscopic examination this is found to consist of tuberculous granulation tissue, in which are typical foci and giant-cell systems, with central areas of necrosis.

M.N. 3070. Mr. Thorburn.

HUMERUS: Tuberculosis. 96·4:56·1
96·4:55·2

The head of the humerus was removed by horizontal section below the great tuberosity. There is marked erosion and caries of the bone. The articular cartilage has disappeared and the surface is covered with pulpy tuberculous granulation tissue.

The patient was a girl aged 24 years.

M.N. 3243. D.B. 4388. June 25, 1904. Mr. Collier.

SHOULDER JOINT: Tuberculous Disease. 96·3:56·1
96·4:56·1
96·4:55·2
96·4:55·3

The articular surface of the humerus has been extensively eroded by tuberculous inflammation which has extended to the tuberosity. The bone shows marked rarefaction and portions of the wall of an abscess cavity can be seen lined with granulation tissue.

The patient was a man aged 32 years, who had suffered from pain and stiffness of the shoulder following a sprain of the joint. On admission there was complete loss of mobility at the joint, and the muscles were markedly atrophied. The joint was excised June 25th, 1904. Recovery was complete and fibrous anchylosis resulted.

BONES AND JOINTS OF THE UPPER EXTREMITY: HYPERTROPHY.

M.N. 712.

HUMERUS (LEFT): Hyperostosis. 96·4:62

The bone is increased in weight, and the shaft in thickness by formation of dense bone, which forms a distinct layer anteriorly in the lower part of the shaft. About the middle of the antero-internal aspect is an irregular mass of bone attached to the shaft in its lower two-thirds.

BONES AND JOINTS OF THE UPPER EXTREMITY: BENIGN TUMOURS.

M.N. 721A. Prof. YOUNG.

SCAPULA (R. and L.): Exostosis. 96·2 : 63·4

The specimens present several bony outgrowths, most of which are small. On the inner surface of both bones are three exostoses situated about the middle of each of the three borders, and presenting flattened spread-out summits. Those on the right bone are large, and the lower two arch toward each other, and almost complete a semi-circle. (See M.N. 721B, C & D, below; also pelves M.N. 721E—98 : 63·4; femur M.N. 721F—97·3 : 63·4; tibia and fibula M.N. 721G—97·6 : 63·4.)

M.N. 721B. Prof. YOUNG.

HUMERUS (R. and L.): Exostosis. 96·4 : 63·4

The shafts are somewhat curved with the concavity outwards. The upper halves of the bones are much enlarged and deformed by outgrowths of bone, which vary in shape and size. On the left bone the outgrowth is mainly on the anterior and posterior aspects, while on the right it occurs more irregularly. (See scapula M.N. 721A, above.)

M.N. 721C. Prof. YOUNG.

ULNA (R. and L.): Exostosis. 96·6 : 63·4

The ulnæ present an antero-posterior curve concave forwards, and also a slight curve concave inwards. On the right side the lesser sigmoid notch is very narrow, and the lower end is greatly deformed by bosses of growth and a long process pointing upwards. The lower articular surface is not recognisable. The lower end of the left bone is much enlarged by outgrowths. (See scapula M.N. 721A, above.)

M.N. 721D. Prof. YOUNG.

RADIUS (R. and L.): Exostosis. 96·6:63·4

The curve of the shaft of the radius is exaggerated on both bones. On the right side the upper articular surface is enlarged, and projects outwards, and between it and the tuberosity is an exostosis. There are two smaller exostoses on the shaft, and the lower end is enlarged and deformed by outgrowths. The lower articular surface for the ulna is barely recognisable. On the left radius there are three small growths at the upper end, and the lower end is deformed by outgrowths. The lower articular surface for the ulna is concave and looks upwards and inwards. (See scapula M.N. 721A, above.)

M.N. 853.

HAND (RIGHT): Enchondroma. 96·8:63·3

The 2nd, 3rd, and 4th digits are enormously enlarged by numerous cartilaginous tumours. The surface is irregular and nodulated. The central portion of some of the growths has broken down, and their superficial coverings having given way, deep irregular excavations are left. The 5th digit is only slightly affected, and the 1st not at all. On the dorsum of the hand there are several tumours.

M.N. 854. D.B. 1436. May, 1887. Mr. JONES.

THUMB: Chondroma of the Terminal Phalanx. 96·8:63·3

The terminal phalanx has been replaced by a large round tumour composed of hyaline cartilage. The growth of the tumour has taken place in the proximal end of the phalanx. It is definitely encapsuled, and there is no sign of myxomatous degeneration. The skin over the surface has an appearance of commencing atrophy.

M.N. 856. Mr. JONES.

FINGER: Chondroma. 96·9:63·3

The bony tissue of the terminal phalanx has been largely replaced by the white hyaline tissue of the cartilage of an endosteal chondroma.

M.N. 857. D.B. 1555. Sept., 1887. Mr. Southam.

METACARPUS: Chondroma. 96·8:63·3

This globular tumour mass grew from the 5th metacarpal bone. The surface is comparatively smooth. On section it is seen to be composed of hyaline cartilage, and a certain amount of fibrous tissue. There are also a few pigmented areas, due to hæmorrhage. The roughened surface on the posterior aspect was the site of origin.

The patient was a girl, aged 15.

M.N. 857B. D.B. 1555. Sept., 1887. Mr. Southam.

METACARPUS: Chondroma. 96·8:63·3

Another specimen of a similar tumour, but much smaller. (See M.N. 857, above.)

M.N. 2719. D.B. 4039. June 24, 1902. Mr. Collier.

HUMERUS: Osteo-Chondroma. 96·4:63·3 (42·9) (42·6)

The specimen shows a large section of an osteo-chondroma removed from the upper three-quarters of the right humerus. It has a well-defined, smooth, oval contour, and a distinct fibrous capsule. On the cut surface are seen irregular areas of ossification, and also areas of whitish myxomatous softening, one of which has formed a cavity communicating by a sinus with the skin surface.

Microscopically, the tissue shows hyaline cartilage with irregular ossification and intervening areas of cellular and myxomatous fibrous tissue.

The patient was a man, aged 28. There is a history of chondromata on both hands since he was 2 years old. These had slowly grown until 4 years before the operation in June, 1902. The growth above described began at 14 years of age.

M.N. 3104. Mr. Collier.

RADIUS: Lipoma of Periosteum. 96·6:63·1

The specimen is a lipoma, about 2 inches in diameter, and shows the characteristic lobulation. The cut surface shows the uniform appearance of the fatty tissue, with strands of connective-tissue matrix here and there.

The patient was a woman, aged 54 years. The swelling was noticed in the forearm 4 years previously, and caused a good deal of pain. The tumour was situated over the radius just below the outer condyle of the humerus. The lipoma at the operation, performed Nov. 4, 1901, was found attached to the ulnar bone and sending a process between the two bones. The swelling was well encapsuled.

M.N. 3224. D.B. 3629. Nov. 15, 1897. Mr. Wright.

HUMERUS: Chondro-Sarcoma. 96·4:63·3 (65)
96·4:21·6

The specimen consists of a humerus which, with the surrounding soft structures, has been bisected. About the middle of the shaft a chondro-sarcoma has grown. The exact point of origin it is impossible to determine. The bone has become fractured and completely disorganised at the site of the tumour, and springing from its outer surface there is a well-defined nodule of about the size and shape of a hen's egg, consisting of hyaline cartilage distributed in soft cellular tissue. In the midst of this there are one or two areas of hæmorrhage. Beneath the site of the fracture another nodule has formed in the medulla, causing expansion of the bone.

The patient was a male, aged 28 years. The growth on the humerus had been present 14 years, and had slowly increased in size. Small enchondromata were present also on the metacarpal bones and phalanges of both hands. The specimen was removed from the humerus. It extended along three-quarters of the length of that bone, and involved the medulla, which was freely scraped. Death occurred 12 hours later from shock.

M.N. 3599. D.B. 4356.

HAND : Osteo-Chondroma. 96 · 8 : 63 · 3 (63 · 4)

In place of the ring and little fingers are two large elongated firm masses of tumour growth, which on section proved to be osteo-chondromata. The phalanges of the index finger are also deformed by a similar, though smaller, growth. Several rounded openings, the mouths of sinuses, are seen on the otherwise smooth surface of the larger masses. No history of the specimen is obtainable.

BONES AND JOINTS OF THE UPPER EXTREMITY: MALIGNANT TUMOURS.

M.N. 772. D.B. 2100. June 14, 1893. Dr. Meek.

HUMERUS: Carcinoma. 96·4:66
96·4:21·3

The cancer in the humerus was secondary to tumour of the mamma, and led to spontaneous fracture of the bone. The fracture is a transverse one, and the bone at the site is much disorganized. There is no record of the original tumour.

M.N. 879. D.B. 882. Mr. Southam.

SCAPULA: Sarcoma. 96·2:65·1

A flat rounded tumour occupies nearly the whole extent of the infra-spinous fossa of the scapula. It has a comparatively soft structure. In the central part there are some strands of fibrous tissue, but at the growing margin it is seen infiltrating the infra-spinatus muscle.

Microscopically, the tumour presents the typical appearance of a small round-celled sarcoma.

M.N. 880. D.B. 885. Oct. 6, 1892. Mr. Southam.

SCAPULA: Sarcoma. 96·2:65·1

The remains of the scapula are embedded in a large mass of sarcoma. The growing periphery has a uniform appearance, while the centre shows softening, and breaking-up.

On microscopical examination the tumour is a round-celled sarcoma with a slightly alveolar arrangement.

M.N. 881.

HUMERUS: Myeloid Sarcoma. 96·4 : 65·4 (42·6)

The specimen consists of one-half of the head and upper part of the humerus. In the central part of the bone there is a soft tumour with a large number of multinucleated giant cells. The cyst-like spaces are due to myxomatous degeneration.

M.N. 881B.

HUMERUS: Myeloid Sarcoma. 96·4 : 65·4

The head and upper part of the shaft have been greatly expanded by the growth of a myeloid sarcoma. The tissue of the tumour has become very much broken up, and this has been due in part to the presence of marked cystic degeneration of a myxomatous type.

M.N. 882. D.B. 1752. Oct. 6, 1892. Dr. Dreschfeld.

HUMERUS: Secondary Carcinoma. 96·4 (87) : 66·4

The humerus is that of a young subject. Situated about the middle of the shaft is a tumour, which has led to spontaneous fracture.

Microscopic examination of the tissue shows that it is a carcinoma of a columnar-celled type. There is no note of the primary tumour.

M.N. 883. Mr. Lund.

RADIUS: Chondro-Sarcoma. 96·6 : 65·1 (63·3)

The forearm is greatly enlarged by the presence of a tumour which lies along the radius for its whole length. A wedge-shaped portion has been removed, and it is seen that the tumour consists of three main masses of growth. The finer texture of the tumour shows a mixture of cartilaginous and cellular tissue, some of which has a necrotic appearance, while here and there there are also areas of myxomatous softening.

Microscopic examination shows that the tumour consists of a mixture of cartilaginous and sarcomatous tissues, in which lie a large number of small nodules of calcification.

M.N. 885. Mr. Turner.

CARPUS AND LOWER END OF RADIUS AND ULNA: Medullary Sarcoma. 96·8:65·4

The carpus is the site of a large cavity which was due to the growth there of a myeloid sarcoma. The exact point of origin was not made out; but on section it was found implicating the bones of the carpus, and the lower end of the radius and ulna. During the period prior to the operation the tumour gave rise to very severe bleeding, and partly to obviate the effects of the hæmorrhage, amputation was performed in the year 1834. The patient recovered, and lived for years after, and Mr. Turner, in his note in 1844, remarks that, so far as he knew, he was still alive.

M.N. 889. Mr. Turner.

METACARPAL BONE. PHALANGES: Central Sarcoma. 96·8:65·4

The metacarpal bone is represented by about half the bony wall of a roughly-spherical hollow tumour; the other portion of the wall is deficient. Part of the original bone is situated in the wall. The external surface is smooth, but presents two prominences, one of which is the proximal end of the metacarpal bone, and on the other is a groove. The internal surface is rough and irregular.

M.N. 2730. D.B. 3878. March 16, 1901. Dr. T. Harris.

CLAVICLE: Periosteal Sarcoma. 96·1:65·7

The specimen was prepared by a horizontal section through the tumour and the sternal end of the clavicle. The tumour grew from the periosteum of the outer two-thirds of the bone, the layer of new tissue being thickest (about $1\frac{1}{2}$ in.) at the acromial extremity, and gradually becoming thinner towards the sternal end. The periosteal layer of the bone is slightly roughened. The tumour tissue is dense, fleshy-looking, and sub-divided into lobulated masses of fibrous bundles apparently springing from the periosteum.

Microscopically, the tumour is almost entirely composed of medium-sized oval cells with a large oval nucleus staining deeply, and there are numerous strands of fibrous tissue forming the stroma. This stroma is at places myxomatous. Even quite close to the periosteum no bone formation was observed.

The patient was a man, aged 50.

M.N. 2897. D.B. 3486. Dec. 15, 1896. Mr. Jones.

ULNA AND RADIUS: Central Sarcoma of the Ulna. 96·6:65·4

The head of the ulna has been the site of a myeloid sarcoma, which has caused a characteristic expansion of the bone, and has replaced all but the outer shell of bony tissue with soft cellular sarcomatous growth of the myeloid variety.

The patient was a woman, aged 37.

M.N. 3156. D.B. 3586. Sept. 11, 1887. Mr. Thorburn.

HUMERUS: Spontaneous Fracture from Secondary Growth. 96·4:65·2
96·4:21·6

On the anterior aspect, about the junction of the upper and middle thirds of the bone, there is a round sessile tumour, about an inch in diameter. At the point of origin of this tumour the bone shows a transverse fracture, and the mesial section of the bone shows that the growth extends along the medullary cavity upwards as far as the surgical neck, and downwards to about the middle of the shaft. The tissue of the tumour has an extremely fine texture, and on the cut surface appears as if it were composed of homogeneous material. The marrow in the medullary cavity, below the growth, has been transformed into red marrow.

Microscopical examination shows that the growth is a spindle-celled sarcoma.

The patient was a woman, aged 88.

M.N. 3535. D.B. 4576. Mr. Wright.

HUMERUS: Sarcoma in a Case of Ostitis Deformans. 96·4:65·2
96·4:55·2(24)

The upper half of the humerus has been bisected. The shaft of the bone shows marked deformity; the surface is very irregular, and the bone is curved, but the diameter of the bone is small. The cut surface shows that the compact bone has become more or less rarefied and cancellous, and that the medullary cavity is to a large extent filled up by loose osseous tissue. Otherwise it is

filled by the remains of the yellow marrow. Spontaneous fracture of the neck has occurred, and at the site of the fracture is seen a tumour occupying the thickness of the bone. It is composed of soft friable tissue with a few areas of hæmorrhage and some commencing myxomatous degeneration. It has formed a rounded mass which extends down the shaft, and lies on its outer side.

Microscopically, the tissue is composed of a mass of cells chiefly of a large spindle-shaped variety, and shows also a large number of small round cells, with here and there a few giant cells.

The patient was a woman, aged 50 years. She had suffered from ostitis deformans for four years. Both tibiæ and femora were thickened and curved, and the spine showed marked kyphosis. The enlargement of the shoulder had been noticed for 4 months, and was very painful.

M.N. 3558. D.B. 3549. Mr. C. E. Richmond.

FOREARM : Periosteal Sarcoma. 96 · 6 (87) : 65 · 1

Surrounding the carpus and lower end of the radius may be seen a large fleshy tumour, for the most part solid, but showing in its upper and anterior part several large smooth-walled cavities due to myxomatous softening. The tumour has apparently sprung from the periosteum, and contains in its substance numerous granules of calcareous material.

Microscopical examination shows that it is a round-celled sarcoma, many of the cells being large in size.

M.N. 3605. D.B. 1335. Nov., 1891. Mr. Jones.

FOREARM : Chondro-Sarcoma. 96 · 6 : 65 · 1 (63 · 3)

The specimen consists of one-half of a tumour involving the greater part of both ulna and radius, both of which bones are traceable through the growth. The tumour has apparently sprung from the periosteum, and forms a dense elongated mass of fairly uniform consistency, with here and there areas of softening. The tumour surrounds chiefly the upper part of the bones, and the skin over it shows irregular thickening.

Microscopic examination displays areas of a very cellular hyaline cartilage continuous with strands of round-celled sarcoma.

BONES AND JOINTS OF THE UPPER EXTREMITY: GENERAL NUTRITIONAL DISEASES.

M.N. 669. Mr. Turner.

HUMERUS (LEFT): Curvature. Rickets. 96·4:86·1
96·4:24

The upper end is enlarged. The upper two-thirds of the shaft are considerably thicker than normal, and present a curve with its convexity forwards and slightly outwards. The borders are very prominent.

M.N. 670. Mr. Turner.

HUMERUS (RIGHT): Curvature, Rarefying Ostitis, Rickets. 96·4:86·1
96·4:55·2

The bone is much lighter than normal. The shaft is thicker than normal, has an irregular surface, and presents a curvature convex outwards. The lower end is rotated outwards. The articular surface of the capitellum is destroyed and the cancellous tissue is exposed.

M.N. 673. Dr. Ashby.

RADIUS OF INFANT: Rickets. 96·6:86·1
96·6:41·2

The junction of the bone and cartilage at the lower end is ill-defined and irregular, and the whole bone has a cancellous appearance. The upper epiphyseal line is normal. There is a certain amount of deformity of the shaft.

M.N. 678. Dr. Ashby.

RADIUS (LOWER END): Rickets. 96·6:86·1

The epiphyseal line is irregular in outline, broad and distorted, and there is no clear distinction between cartilage and bone. The head of the radius is much enlarged.

M.N. 691.

RADIUS and ULNA of a CHILD (8 months old): Osteomalacia Infantum. 96·6:86·2
96·6:41
96·6:24

The shafts of the bones are much distorted, and the compact bone has almost entirely disappeared. In the exceedingly spongy cancellous bone there are several cyst-like spaces, with smooth walls and rounded outlines which have apparently been occupied by fluid. The epiphyseal cartilage is normal.

M.N. 2763. D.B. 3374. Messrs. Thorburn and Westmacott.

HUMERUS, RADIUS and ULNA: Hypertrophic Pulmonary Osteoarthropathy. 96·4:86·4
96·6:86·4

The upper and lower ends of the humerus show very little gross change. The articular cartilages are thinned and eroded except around the circumference of the head of the humerus. The cancellous bone exposed under this area of erosion is apparently rarefied, and the bone as a whole is of loose texture. On the shaft are no signs of periostitic thickening. The radius and ulna show widespread periostitic thickening, the newly-deposited bone being of loose texture. The lower end of the radius was detached during the process of maceration. The epiphyses are not the seat of new bone formation, and hence appear relatively small, as compared with the shaft.

The patient was a male, aged 22. The disease was apparently of about 4 years' duration. For a full account of the case see "Transactions of the Pathological Society of London," 1896, page 177. (See bones of the hand M.N. 2764—96·8:86·4, femur M.N. 2765—97·3:86·4, bones of the foot M.N. 2766—97·8:86·4.)

M.N. 2764. D.B. 3374. Messrs. Thorburn and Westmacott.

BONES of the HAND: Hypertrophic Pulmonary Osteoarthropathy. 96·8:86·4

The carpal, metacarpal and phalangeal bones are covered with a sheath of osseous deposit, which is most marked on the carpal and on the bases of the metacarpal bones. Small erosions of cartilage were found in most of the joints of the hands. (See humerus M.N. 2763—96·4:86·4, femur M.N. 2765—97·3:86·4, bones of the foot M.N. 2766—97·8:86·4.)

BONES AND JOINTS OF THE LOWER EXTREMITY: MECHANICAL LESIONS.

M.N. 444. Mr. Turner.

TIBIA: Fracture. 97·6:21

A well-united transverse fracture in the lower half of the shaft, with some angular deformity.

M.N. 445.

FEMUR (RIGHT): Fracture. 97·3:21·2
97·3:55·1

A badly united oblique fracture in the lower-third of the shaft. The lower fragment is drawn up behind the upper, tilted backwards and rotated outwards. An enormous mass of callus has been thrown out and ossified, especially posteriorly.

M.N. 446.

FEMUR, TIBIA: Fracture, Formative Periostitis. 97·3:21·2
97·3:55 1

A very oblique fracture of the shaft of the femur in its lower half, running downwards, forwards, and outwards. There is no attempt at direct union. The upper fragment shows hardly any change, but its fractured margin is smoothed by friction. The lower fragment is somewhat rarefied and is displaced upwards and inwards, and presents on the outer aspect a groove for the reception of the upper fragment. Surrounding the whole bone in the region of the fracture, and firmly attached to both fragments, is a mass of spongy osteophytic bone.

M.N. 474.

TIBIA and FIBULA: Fracture, Formative Periostitis and Ostitis. 97·6:21·1 97·6:24·1 87:55·1

An united oblique fraeture of both bones, the tibia in its lower half, and the fibula in its upper fourth. The lower fragments are displaeed upwards, and are inclined towards eaeh other. The upper fragment of the tibia is eurved and twisted, possibly as the result of a seeond fraeture in its upper third. The bones are heavier than normal, and are eovered by an irregular deposit of subperiosteal bone. The fibula is anehylosed to the upper end of the lower fragment.

M.N. 537. Mr. Turner.

OS INNOMINATUM: Dislocation, Rarefying Ostitis, Formative Ostitis. Eburnation. 97·2:23 97·1:24 97·1:55·1

The bone is lighter than normal. The aeetabulum is almost eompletely obliterated by new bone and apparently rolling in of its pubie and isehial borders. A new saueer-shaped artieular surfaee, $2\frac{1}{2}$ ins. in diameter, with prominent edges, has been formed on the dorsum ilii. The superfieial layers of the new surfaee are selerosed and eburnated. The eaneellous tissue is rarefied.

M.N. 596. June 17, 1882. Mr. Heath.

FOOT: Anchylosis of the Ankle Joint. 97·7:24·1

The specimen eonsists in a sagittal seetion of the right foot, showing the inner half. It is seen that the astragalus is united by firm osseous tissue to the tibia above, and to the os ealcis below. In the latter, the line of union is just visible. There is no history of the case.

M.N. 597. D.B. 297. June 24, 1886.

KNEE-JOINT: Anchylosis. 97·4:24·1

The specimen shows a vertical section of the femur and tibia. The knee-joint had been excised, and these bones had subsequently united by osseous tissue. The line of union is indicated by an irregular white line of fibro-cartilaginous tissue. The union has taken place with the bones almost at a right angle to each other.

M.N. 628.

OS INNOMINATUM, FEMUR: Caries, Formative Ostitis, Anchylosis. 97·2:24·1
97·1:55·1
97·1:55·2

The bones are increased in weight. The femur is in the position of great flexion and some adduction. There is a broad ridge of subperiosteal new bone along the linea aspera and small nodules on the great trochanter and superior portion of the rim of the acetabulum. A buttress of dense new bone extends from the neck down the internal surface of the femur for several inches. At the acetabular border superiorly, is a deep cavity; posteriorly, near the digital fossa, is a very small deep hole, and there are carious cavities in the acetabular portion of the pubis. The sections of the femur and ilium show very dense bone.

M.N. 629.

OS INNOMINATUM, FEMUR (LEFT); Tuberculosis? Rarefying Ostitis, Formative Ostitis. Anchylosis. 97·2:24·1
97·3:55·2
97·3:55·1

The upper half of the femur with the great trochanter sawn off obliquely, and the acetabular portion of the os innominatum.

The bones are diminished in weight and the femur is curved at the lower end. The femur is in the position of great flexion and some adduction. The acetabulum is almost completely destroyed, being represented by a few bars of bone separated from one another and the head of the femur by tunnels. The femur is anchylosed to the os innominatum, but the line of junction can be easily traced above. The upper section of the femur shows widening of the cancellous spaces, and the lower section diminution of the compact tissue.

M.N. 630.

FEMUR and ACETABULUM: Anchylosis. 97·2:24·1
97·1:55·1

There is marked overgrowth of dense bone between the anterior surface of the neck of the femur and the os innominatum.

M.N. 633.

FEMUR, TIBIA (RIGHT): Necrosis, Formative Periostitis, Condensing Ostitis, Anchylosis. 97:24·1
97:55·1
97:55·4

The bones are much increased in weight. The upper half of the shaft of the femur forms an angle with the lower half opening backwards and outwards. The posterior aspect of the bone is extremely rough, and the anterior is irregular. The head and upper end are somewhat rarefied. In the middle of the anterior surface is a cloaca, in the bottom of which lies a piece of dead bone. The whole of the shaft presents signs of periostitis which has resulted in new formation of bone, while posteriorly, parallel to the linea aspera, it has left a prominent ridge of bone 13 c.m. long. The internal and external condyles, separated by a tunnel, are anchylosed to the tibia in a position of moderate flexion. In the external condyle and head of the tibia is a deep irregular excavation 6 c.m. long and 3 c.m. broad. The tibia has a roughened surface, except on portions of the external aspect, from irregular formation of a thin layer of new subperiosteal bone. The curved line of the tibia is raised into a bony ridge, and just below the internal condyle of the tibia is a pedunculated nodule of bone.

M.N. 634. Mr. Turner.

FEMUR, TIBIA, PATELLA: Anchylosis of the Knee Joint. 97·4:24·1

The tibia is partially dislocated, and rotated outwards. The bones are lighter than normal, and the medullary cavities increased in size. The tibia is anchylosed to the femur in a position of rectangular flexion. The patella is anchylosed to the external condyle.

M.N. 635.

KNEE JOINT: Anchylosis. 97·4:24·1
97·3:55·2
97·6:55·2

The specimen includes the lower end of the femur, the patella and upper ends of the tibia and fibula. The bones are anchylosed in a position of flexion; the tibia has been displaced and rotated outwards. The patella is anchylosed to the external condyle of the femur. The whole of the bones show extensive osteo-porosis, probably the result of disuse.

M.N. 639.

TIBIA. FIBULA; Formative Ostitis. Anchylosis. 97·6:24·1
97·6:55·1

The tibia presents a marked convexity inwards. The fibula is almost straight and is anchylosed to the tibia at the superior tibio-fibular articulation directly, and below this by a mass of new bone $1\frac{1}{4}$ inches in vertical extent.

M.N. 644.

TIBIA, FIBULA, ASTRAGALUS, OS CALCIS: Fracture, 97·6:21
Formative Periostitis and Ostitis, Anchylosis. 97·7:24·1

There has been a fracture of both tibia and fibula almost at the same level. The upper end of the fragment of the tibia is thickened by a deposit of new bone, and presents rounded excavations in the position of the original medullary cavity. The shaft of the fibula presents slight angular deformity, and the lower part of the upper fragment is considerably increased in thickness, and its internal aspect is grooved longitudinally. The fibula is anchylosed to the tibia and astragalus which is anchylosed to the tibia and os calcis.

M.N. 746.

OS INNOMINATUM, SACRUM, COCCYX; Fracture. 97·1:21·1
99:24

The right os innominatum presents four fractures. The corresponding side of the pelvis is driven inwards and upwards. The fractures pass through the posterior part of the wing of the ilium, the two rami of the pubes, and the ramus of the ischium. A small piece of bone has been broken off the lateral mass of the sacrum. The fractures have all united, but vary in the firmness of union.

M.N. 748. Mr. Jones.

OS INNOMINATUM: Fracture. 97·4:21

There is a simple transverse fracture of the ramus of the ischium and a partial fracture of the ramus of the pubis.

M.N. 769. D.B. 570. Oct., 1887. Mr. Heath.

FEMUR: Intra-Capsular Fracture of the Neck of the Left Femur. 97·3:21·3

A glass rod has been inserted to open up the site of the fracture and to show the roughened surfaces. The capsular ligament is aparently thickened.

M.N. 770.

FEMUR: Impacted Fracture of the Neck. 97·3:21·2
97·3:61

The upper end of the femur has been bisected vertically. The neck of the femur at its junction with the shaft has been driven outwards into the substance of the great trochanter. Very imperfect union has taken place and the line of fracture can still be clearly defined. The cancellous bone shows a considerable amount of rarefaction. On the outer surface of the bone, in the neighbourhood of the fracture, a large amount of callus has been formed.

M.N. 771A. Feb. 11, 1889.

FEMUR: Fracture of the Neck. 97·3:21·3

From the surface of the section it is seen that a transverse fracture of the neck of the femur has occurred, and that the upper fragment of bone has been driven into the lower, and become impacted. At the same time both the great and lesser trochanters have been split off from the shaft. There has been little, if any, attempt at union, and there is no sign of new bone formation. There is, however, some rounding off of the upper end of the shaft and of the lower end of the neck.

M.N. 771B. Feb. 11, 1889.

FEMUR: Fracture of the Neck. 97·3:21·3

This specimen is the corresponding half of 771A. (See above).

M.N. 774.

PATELLA: Fracture. 97·5:21·3

The patella is surrounded by soft tissues. The articular surface of the patella is fractured, and the cartilage has been to a considerable extent abraded by the injury. Between the edges of the fractured bone a strand of blood-clot has been deposited. There has been no attempt at healing.

M.N. 776.

FEMUR (LEFT): Fracture. 97·3:21·3
97·3:55·3

The specimen is an example of ununited intra-capsular fracture of the neck. The upper fragment presents below a fairly flat surface, which is smooth by superficial condensation of bone. The upper end of the lower fragment is hollowed, and the prominent border is smoothed by friction. The greater part of the neck has been absorbed.

M.N. 777.

FEMUR: Fracture. 97·3:21·3
97·3:55·1

The upper third of a femur has been bisected and the pieces wired together. An ununited intra-capsular fracture of the neck has occurred. The upper fragment, consisting of the head and a very small portion of the neck below, is rarefied. The neck has been absorbed, and the shaft at its base presents an irregular surface with a few small osteophytic outgrowths, which are the only signs of a reparative process.

M.N. 778.

FEMUR: Fracture. 97·3:21·3

The bone is much lighter than normal, and there is an ununited fracture of the base of the neck. The circumference of the fractured end of the upper fragment and the anterior part of the circumference of the lower fragment is smoothed by friction. There is no attempt at repair except a thin deposit of very spongy bone over the greater part of the upper end of the shaft.

M.N. 779.

FEMUR: Fracture. 97·3:21·3

An oblique fracture following the course of the inter-trochanteric line has occurred. There has been no attempt at reunion.

M.N. 780.

FEMUR: Fracture. 97·3:21·1

The upper third of the femur has been preserved and shows an united fracture of the base of the neck, with fracture of the great trochanter.

M.N. 782.

FEMUR: Fracture. 97·3:21·2
97·3:55·1

There is an oblique fracture of the upper end of the femur, running downwards and backwards from the anterior upper margin of the great trochanter to just below the lesser trochanter posteriorly. The lower fragment is adducted and drawn upwards somewhat. At the upper end of the line of fracture is a foramen leading into the medullary cavity of the shaft, and at the lower end is a tunnel running upwards for about 3 c.m. The fracture is firmly united. There is a considerable amount of deformity of the bone and a large amount of new bone has been formed round the site of the fracture.

M.N. 783. Mr. Turner.

FEMUR: Fracture. 97·3:21·2
97·3:55·1

There is an oblique fracture in the upper third of the shaft. The lower fragment is considerably drawn upwards in front of the upper, and is rotated outwards. There is marked angular deformity. The fracture is united by an excessive amount of callus.

M.N. 784. Mr. Turner.

FEMUR: Fracture. 97·3:21·2
97·3:55·1

There is an oblique fracture in the upper third of the shaft, running downwards, backwards, and slightly inwards. The lower fragment is considerably drawn up. There is an excessive production of bone at the seat of fracture. On the anterior surface near the lower end of the line of fracture is a foramen opening into a cavity that extends upwards to the great trochanter.

M.N. 785. Mr. Turner.

FEMUR: Fracture. 97·3:21·2

There is a firmly united oblique fracture of the upper part of the shaft, running downwards and outwards. The lower fragment has been drawn up on the inner side of the upper, and forms with it an angle opening outwards. The posterior border of the broken end of the lower fragment is very prominent.

M.N. 787. Mr. Turner.

FEMUR: Fracture. 97·3:21·2

A badly united oblique fracture of the middle of the shaft.

M.N. 788.

FEMUR (RIGHT); Fracture. 97·3:21·2

An oblique fracture in the lower half of the shaft running downwards and inwards for a distance greater than one-third the whole length of the bone. The lower fragment is displaced upwards, and its lower end is tilted slightly backwards. There is firm union of the fragments.

M.N. 789. Mr. JORDAN.

FEMUR: Fracture. 97·3:21·2

A badly united fracture in the lower half of the shaft.

M.N. 790. Mr. JORDAN.

FEMUR: Fracture. 97·3:21·2
97·3:55·2

The upper two-thirds of a femur has been preserved, and shows a badly-united fracture of the middle of the shaft. The compact tissue of the upper fragment is very thick and dense, but that of the lower is thinned.

M.N. 791.

FEMUR (LEFT): Fracture. 97·3:21·2
97·3:24

A badly united fracture of the middle of the shaft. The union is, however, very firm.

M.N. 792.

FEMUR (RIGHT): Fracture. 97·3:21·2

A badly united fracture near the middle of the shaft.

M.N. 793. Mr. Turner.

FEMUR (LEFT): Fracture. 97·3:21·2

A badly united fracture of the middle of the shaft. The medullary cavity in both fragments is open.

M.N. 794.

FEMUR (LEFT): Fracture. 97·3:21·2

The upper half of a femur shows a badly united, somewhat oblique fracture in the upper half of the shaft. The fragments meet at an angle of about 145°, opening backwards.

M.N. 795. Mr. Jordan.

FEMUR (RIGHT): Fracture. 97·3:21·2
97·3:55·1

A badly united oblique fracture of the shaft running downwards and backwards. The lower fragment is drawn up in front of the upper. There is well-marked formation of dense new bone.

M.N. 796.

FEMUR (RIGHT): Fracture. 97·3:21·2
97·3:55·1

A badly united oblique fracture in the middle of the shaft. There is slight excess of callus forming bars and sharp spikes of bone.

M.N. 797.

FEMUR (LEFT): Fracture. 97·3:21·2
97·3:55·1
97·3:55·2

A badly united, oblique fracture, just below the middle of the shaft. The section shows the closed ends of the medullary cavity, and partial absorption of the compact tissue of the shaft lying between the two parts of that cavity.

M.N. 798.

FEMUR: Fracture. 97·3:21·2
88:42·9

A transverse fracture of the middle of the shaft. The lower fragment is drawn up behind the upper, and the two fragments are united at an angle opening inwards. The union is very dense. Anteriorly is a sharp prominence, the remains of a splinter of the anterior surface, and posteriorly is another smaller prominence, from ossification in the aponeurosis attached to the linea aspera.

M.N. 799.

FEMUR (LEFT): Fracture. 97·3:21·2
97·3:55·1

A transverse fracture in the lower third of the shaft. The lower fragment is displaced outwards and backwards, and is drawn up to the outer side of the upper fragment, which is adducted. The lower fragment is also tilted backwards and rotated outwards. The medullary cavity of the upper fragment is closed except for a small central hole, but that of the lower is only partially closed. The two fragments are firmly united by dense, new bone.

M.N. 800. Mr. Turner.

FEMUR (RIGHT): Fracture. 97·3:21·2

A badly united, oblique fracture, in the lower third, running downwards and outwards. The lower fragment is displaced upwards and inwards. In the line of the fracture there are several holes opening into the medullary cavity. In the lower fragment there are some small, loose pieces of bone.

M.N. 801.

FEMUR (LEFT): Fracture. 97·3:21·2

A badly united transverse fracture near the middle of the shaft.

M.N. 802.

FEMUR (RIGHT): Fracture. 97·3:21·2

An united Y-shaped fracture of the lower end of the femur. The two condyles are united with slight displacement; both are above their normal position, and lie partly behind the shaft. To the outer side in the line of the fracture are two holes leading to the medullary cavity.

M.N. 803

FEMUR: Fracture. 97·3:21·2

The upper four-fifths of a femur shows a badly-united transverse fracture a short distance below the middle of the shaft. The medullary cavity of the lower fragment is not closed. The lower end has been broken off.

M.N. 804A. & B. D.B. 781. Feb. 2, 1889.

FEMUR: Fracture. 97·3:21·3
97·3:55·2

The femur is in two fragments, and there is an ununited transverse fracture in the upper third of the shaft. The fractured ends of the fragments are rounded, and the medullary cavity closed. The compact tissue of the bone is rarefied, and here and there is some deposition of new, spongy, subperiosteal bone with definite osteophytes near the fracture.

M.N. 806. Mr. TURNER.

TIBIA: Fracture. 97·6:21

An united oblique fracture in the lower fourth of the shaft, with slight displacement of the lower fragment upwards and forwards.

M.N. 807. Mr. TURNER.

TIBIA (LEFT): Fracture. 97·6:21

A well-united transverse fracture in the lower half of the shaft with slight angular deformity. The bone is lighter than normal.

M.N. 808. Mr. Turner.

TIBIA (RIGHT): Fracture. 97·6:21·2

A somewhat badly united oblique fracture in the middle of the shaft.

M.N. 809. Mr. Turner.

TIBIA: Fracture: 97·6:21·2

A badly united oblique fracture in the lower third of the shaft. The line of fracture runs downwards and inwards, and slightly forwards. The callus is deficient at the middle of the fracture, leaving a foramen between the fragments.

M.N. 810. Mr. Turner.

TIBIA (LEFT): Fracture. 97·6:21·2

A badly united fracture in the lower third of the shaft. The medullary cavity of the lower fragment is exposed.

M.N. 811. Mr. Turner.

TIBIA (LEFT): Fracture. 97·6:21·2

A badly united, oblique fracture, in the lower half of the shaft.

M.N. 812. Mr. Turner.

TIBIA and FIBULA: Fracture. Formative Periostitis. 97·6:21·2
97·6:55·1
97·6:24·1

A very oblique fracture of the shaft of the tibia, with fracture of the upper fragment, and an oblique fracture in the upper fourth of the fibula. The fragments are firmly united with considerable deformity, and are extensively covered by an irregular deposit of subperiosteal new bone which has resulted in anchylosis of the tibia and fibula in three places.

M.N. 813.

TIBIA, FIBULA: Fracture. Formative Periostitis. 97·6:21
97·6:55·1

The tibia is bisected sagittally. There is an united, oblique fracture of the shaft of the tibia, which in the region of the fracture is much increased in thickness by formation of new bone. On the anterior surface are three cloacæ, the lowest of which leads into a cavity in the shaft. The section shows firm, bony union of the fragments, but with complete separation of the two parts of the medullary cavity. A small process of new bone projects towards another eminence on the fibula. Almost the whole of the fibula shows evidence of a formative periostitis.

M.N. 814.

TIBIA, FIBULA: Fracture. 97·6:21·2

A badly united, oblique fracture of the tibia only, in its lower third. Externally in the line of the fracture is a deep pit due to deficiency of callus.

M.N. 815.

TIBIA. FIBULA (LEFT): Fracture. 97·6:21:2

Slightly oblique fractures of both bones at the same level immediately above the middle of their length. The upper ends of the lower fragments are displaced forwards and somewhat outwards.

M.N. 816.

TIBIA. FIBULA (RIGHT); Fracture. 97·6:21

A badly united oblique fracture of the tibia in its lower half, and of the fibula in its upper third. The bones are very light.

M.N. 817.

TIBIA and FIBULA: Fracture. Anchylosis. 97·6:21·1
97·6:24·1

The lower third of both bones has been preserved, and there is a well-united fracture of both bones just above the ankle, with bony anchylosis at the level of the fracture. There is slight angular deformity of the fibula.

M.N. 818.

TIBIA. FIBULA: Fracture. 97·6:21·1
97·6:24

The lower halves of the tibia and fibula have been preserved, and show an united fracture of the tibia only, in its lower third, with slight displacement.

M.N. 819.

TIBIA (LEFT): Fracture. 97·6;21·2

A badly united oblique fracture in the lower half of the shaft.

M.N. 820.

TIBIA; Fracture. 97·6:21·2

A badly united oblique fracture in the lower half of the shaft.

M.N. 821.

TIBIA (RIGHT); Fracture. 97·6:21·2

A badly united oblique fracture in the lower half of the shaft.

M.N. 822.

TIBIA: Fracture. 97·6:21·2

A badly united oblique fracture in the lower half of the shaft.

M.N. 823.

TIBIA: Fracture. 97.6;21·2

A badly united fracture in the lower third of the shaft.

M.N. 824.

TIBIA (RIGHT); Fracture. 97·6:21·2

A badly united transverse fracture of the middle of the shaft. The upper end of the lower fragment is displaced outwards and backwards.

M.N. 825.

TIBIA (RIGHT): Fracture. 97·6:21·2

An united transverse fracture just below the middle of the shaft. The upper end of the lower fragment is displaced forward, and there is slight angular deformity.

M.N. 826.

TIBIA (RIGHT); Fracture. 97·6:21·2

A badly united, oblique fracture, in the lower half of the shaft.

M.N. 827. Mr. Turner.

FIBULA (LEFT): Fracture. 97·6:21·2

A badly united, oblique fracture, in the upper third of the shaft.

M.N. 828. Mr. Turner.

FIBULA: Fracture. 97·6:21·2

An united fracture in the lower third of the shaft, with some angular deformity.

M.N. 829.

FIBULA: Fracture. 97·6:21·2

A well-united fracture in the upper third of the shaft, with excess of bony callus.

M.N. 830.

FIBULA (LEFT): Fracture. 97·6:21·2

A badly united oblique fracture in the upper fourth of the shaft.

M.N. 831.

FIBULA (LEFT): Fracture. 97·6:21·2

A badly united oblique fracture in the upper third of the shaft.

M.N. 832. Mr. Turner.

FIBULA (RIGHT): Fracture. 97·6:21·2

A badly united tranverse fracture of the middle of the shaft, with considerable angular deformity.

M.N. 835. D.B. 782. Feb. 26, 1889.

FEMUR. 97·3:28

A leaden bullet lodged in the digital fossa.

M.N. 836.

FEMUR: Intra-Capsular Fracture of the Neck. 97·3:21·2
97·3:55·7

The specimen shows the acetabulum, with the head of the femur *in situ*. The neck of the femur has been almost entirely destroyed, and the head is now situated below the level of the great trochanter, and has formed fibrous union with the bone at this level. These fibrous bands are about a quarter of an inch in length, and stretch across the space which intervenes between the fractured surfaces. The surface of the ligament is covered with soft granulation tissue, and is roughened in consequence.

M.N. 948.

TIBIA and FIBULA: Deformity with Fixation. 97·8:24·1
97·6:55·4
97·6:55·1

The tibia is deformed by curving, by deposit of subperiosteal bone on the shaft, and by destruction of the lower end. Part of the shaft of the fibula has been entirely destroyed, leaving the ends of the bone eroded; the lower fragment is much increased in thickness and at its lower end is anchylosed to the tibia. The foot is very small as compared to the tibia, and has undergone plantar flexion to such an extent that the whole foot is behind the tibia and the plantar surface looks upwards. There has been considerable destruction of the proximal row of tarsal bones, and their remains form an irregular mass of somewhat carious bone. All the tarsal bones are anchylosed together and to the metatarsus, tibia and fibula. The distal end of the 5th metatarsal bone is anchylosed to the 4th. The condition is probably due to tuberculosis supervening on an already malformed foot.

M.N. 3132.

FEMUR: Ununited Fracture. 97·3:21·3
97·3:24
97·3:21·1

There is a transverse fracture about the middle of the shaft of the femur. The upper fragment is riding on the front of the lower fragment and overlaps it for about an inch. The ends of the bone are held in this position by the matted surrounding structures, chiefly muscular. There is no attempt at osseous union. The medulla of the bone shows little or no change.

BONES AND JOINTS OF THE LOWER EXTREMITIES: RETROGRESSIVE DISORDERS.

M.N. 392. Mr. Jones.

FEMUR: Sequestrum. 97·3:44·7

The bone has a "worm-eaten" appearance over a large extent of its surface. The patient was a boy aged 17.

M.N. 394. Mr. Lund.

FIBULA: Sequestrum. 97·6:44·7

A large portion of the fibula has been shed as a sequestrum. The outer surface is smooth, and the edges and extremities of the piece of bone are thinned out, and spiculed.

M.N. 395. Mr. Heath.

TIBIA: Sequestrum. 97·6:44·7

A large piece of the shaft of the tibia has been shed as a sequestrum. The outer surface of the bone is smooth, and the edges and extremities show the characteristic "sugar-loaf" spicules. The inner surface is very much pitted and irregular.

M.N. 396.

TIBIA: Necrosis, Sequestrum. 97·6:44·7

The specimen is a sequestrum of the shaft of the tibia. It is 21 c.m. long and comprises the whole circumference of the bone in the greater part of its length. Sugar-loaf spicules are well seen at both ends.

M.N. 397.
TIBIA: Acute Necrosis. 97·6:44·7

The specimen shows the greater part of the shaft of the tibia (of a child), which has separated and been removed as a sequestrum. The edges and ends of the bone display the characteristic thinning out and spicule formation. The general surface of the bone is comparatively smooth, but here and there shallow erosions can be seen. On the posterior surface, at the lower end, there is a triangular blackened area.

M.N. 398.
FEMUR; Acute Necrosis. 97·3:44·7

The specimen consists of the greater part of the shaft of the femur (of a child), which has separated and been removed as a sequestrum. The surface is smooth, but it is slightly "worm-eaten" near each end. The ends of the bone are characteristically spiculated and thinned, forming the "sugar-loaf" sequestrum.

M.N. 399. Prof. Young.
TIBIA: Sequestrum. 97·6:44·7

The specimen is a long irregular sequestrum from the tibia. The outer surface is very irregular from superficial erosions. The edges and extremities of the bone are thinned out and spiculated. In this case there has been extensive absorption of the sequestrum, as large lacunæ are found in it.

M.N. 418.
TIBIA: Necrosis, Sequestrum. 97·6:44·7

The specimen shows a sequestrum $5\frac{1}{4}$ ins. long, with irregular ends, consisting of the whole circumference and thickness of a portion of the shaft of a tibia.

M.N. 427. Mr. Jones.
FEMUR: Osteoporosis. 97·3:41

The shaft is greatly atrophied, but the head is relatively free from atrophy. A layer of bone derived from the periosteum surrounds the lower part of the shaft.

M.N. 843.

PORTIONS OF A NECROSED FEMUR. 97·3:44·7

M.N. 3193. Mr. Wright.

TIBIA: Sequestra. 97·6:44·7

The specimen consists of 6 sequestra removed from a compound fracture of the tibia. They present the bevelled ends and spiculed edges characteristic of the bone in this condition.

The patient was a man aged 19 years who had had a compound fracture 7 months previously. Sinuses leading to the dead bone persisted. The sequestra were removed. They were surrounded by porous, new-formed bone. The operation took place Sept. 30, 1904.

M.N. 3236. Mr. Burgess.

KNEE JOINT: Charcot's Disease from a Case of Locomotor Ataxia. 97·4:47 97·4:55·2 89:55·1

The right knee joint has been opened from the front. The articular surfaces are very much eroded and roughened, and the edges are distinctly lipped. There is no thickening of the synovial membrane, or of the soft tissues of the joint. The crucial ligaments are not destroyed. The internal condyle is broken off from the shaft and is kept in its abnormal position by the soft tissues. The osseous tissue of which it is composed is extensively worn away, an indication that the fracture of the condyle had taken place sometime before death. The inner border of the femur is markedly hypertrophied, the new bone having a fairly compact texture; but the surface is irregular. The mass half encircles the atrophied shaft of the femur anteriorly. The compact bone of the femur is reduced to a very thin layer, and the medullary cavity of the bone is enlarged and filled with fat. The same change has occurred in the tibia and fibula.

The patient was a male, aged 56. The right hip-joint was also affected with Charcot's disease. There was no history of injury to the knee-joint.

M.N. 3544. D.B. 4625. April 26, 1905. Mr. Collier.

ARTICULAR SURFACES of FEMUR and TIBIA: Charcot's Disease. 97·4:47

The cartilage of the femur has been very extensively worn away, and the bone exposed. While, on the whole, it is smooth, it shows one or two irregular erosions, and also an irregular mottling. The remains of the cartilage are white and fibrous in appearance, especially the part immediately surrounding the erosions. Around the outer border of the articular surface a certain amount of irregular lipping has occurred. The articular surface of the tibia is very irregularly excavated. The cartilage is in the same condition as that of the femur. The bone has been deeply worn away, and the synovial fringes show very marked fibrous thickening.

The patient was a man, aged 62.

M.N. 3576. D.B. 3744. Dec. 5, 1899. Dr. Dreschfeld.

KNEE JOINT: Charcot's Disease. 97·4:47

The knee-joint has been opened by a sagittal incision. The following changes may be noticed:—Femur and tibia are atrophied and show rarefaction; the articular cartilage on the condyle of both these bones has been completely eroded, but that of the patella only to a slight extent; the synovial membrane shows the growth of irregular processes, and there is evidence of dilatation of the capsule by joint effusion.

BONES AND JOINTS OF THE LOWER EXTREMITIES: INFLAMMATION.

M.N. 400. D.B. 228.

TIBIA: Osteo-Myelitis. 97·6:54·5
97·6:55·4
97·6:55·1

The specimen shows the upper end and the greater part of the shaft of the tibia. In the middle of the shaft there is a fusiform thickening of the bone, and an opening in the centre of this enlargement leads down to a cavity in the centre of the shaft. On the cut surface it is seen that general sclerosis of bone has occurred, and occupying the cavity, to which the opening leads, there is an oblong mass of bone in a state of necrosis, almost completely separated from the surrounding bone tissue. The walls of the cavity are otherwise smooth.

M.N. 402. D.B. 333. July 3, 1886. Mr. Heath.

TIBIA: Necrosis of the Bone and Inflammation of the Knee Joint. 97·6:54·4
97·6:44·4
97·6:55·1
97·4:54·4

The upper end of the tibia gives evidence of inflammation in the following points:—The articular cartilage shows, in its centre, areas of necrosis, and at its margin the rough tissue of inflammatory granulations. There has apparently been an abscess in the head of the tibia, and with the cavity of this the openings in the articular surface communicate. At the site of the abscess a moderately large disc of bone has necrosed, and has partially separated. Below this there is a great defect in the bone, and the margins of the destroyed area are roughened and eroded by the inflammation. A few nodules of new bone have formed from the periosteum, on the surface, along the lower border of the inflamed area.

M.N. 404. Dr. Ransome.

FEMUR (LEFT): Rarefying Ostitis, Superficial Formative Periostitis. 97·3:54·4
97·3:55·1

In the shaft the antero-posterior curve is slightly exaggerated, and the lower end is rotated somewhat inwards on the remainder. The lower half of the anterior and antero-lateral surfaces are in great part covered by a very spongy layer of new bone, the surface of which is irregular, and marked by deep longitudinal grooves and pits. An area extending for $1\frac{3}{4}$ inches above the anterior edge of the lower articular surface is carious, and at its upper end is a tubular excavation running upwards for a distance of 1 inch. There is a small carious hole on the internal condyle anteriorly. Along the linea aspera and posterior aspect there is a deposit of new spongy bone, increasing in amount from 1 inch below the trochanter minor to a point 6 inches from the lower end, where it ends in a raised nodule below which is an irregular area of superficially necrosed bone $2\frac{1}{2}$ inches in its greatest length. The popliteal surface has a rarefied appearance, and presents several large excavations, of which the middle one on the outer side communicates through the bone substance with the one measuring $1\frac{1}{4}$ inches in length in the middle line.

M.N. 405. Mr. Turner.

FEMUR (LEFT): Formative Periostitis and Ostitis. Osteo-Myelitis (Chronic). 97·3:55·1
97·3:54·4
87:55·1
86:54·4

The lower fourth of the shaft is bent backwards. The anterior and posterior surfaces are very irregular, being marked by wide, deep grooves, and more or less circular pits. The greater part of the shaft is much thickened by new bone which is most abundant posteriorly, but which is absent from the upper and lower ends of the shaft. The greatest antero-posterior diameter is about 6 c.m. In the middle half of the bone, the old compact tissue has been replaced by an increased thickness of spongy bone with a narrow zone of compact tissue externally.

M.N. 406. Mr. Turner.

FEMUR: Necrosis, Rarefying Ostitis, Formative Periostitis, Chronic Osteo-Myelitis. 97·3:54·4
97·3:55·1

The anterior and lateral surfaces are fairly smooth. In the upper part of one lateral surface is a round, deep excavation. The posterior surface is very irregular. Almost the whole surface of the bone is covered by subperiosteal new bone, which posteriorly forms a large, curved, projecting mass, and towards the lower end two smaller projections. In the middle line of the popliteal space is an elongated excavation, leading into the central cavity, in which lies a sequestrum. The sections reveal the rarefaction of the compact tissue.

M.N. 407. Mr. Turner.

TIBIA (LEFT): Osteo-Myelitis, Central Necrosis, Formative Periostitis, and Ostitis, Cloacæ. 97·6:54·4
97·6:55·4
97·6:55·1
97·6:55·2
87:55·1

The bone is much heavier than normal. The whole bone, except the lower end, is increased in size, and has an elongated, conical shape. The shaft appears to be bent about 13 c.m. from the upper end. The lower half of the bone has smooth surfaces, except for an irregular nodule of new bone 3·5 c.m. long, just above the lower tibio-fibular articulation. The upper half is enormously enlarged, and its internal surface presents just above the middle of the shaft a large, rounded protuberance, 7·5 c.m. in diameter, and immediately above this a large cloaca 2·5 c.m. long and 1·5 wide, which opens into the enlarged medullary cavity. The external and posterior surfaces in their upper halves are very rough, and present 7·5 c.m. from the upper end two cloacæ, which communicate with the large, central cavity, and immediately below the superior tibio-fibular articulation is a deep excavation 2 c.m. long. The upper articular surfaces are cupped, and the bone is spongy.

M.N. 408. Mr. Turner.

TIBIA (LEFT): Rarefying Ostitis, Necrosis, Osteo-Myelitis. 97·6:54·4
97·6:44·7
97·6:55·1

The specimen has the shape of a tibia with a bend about one-third of its length from the upper end. The original bone is rarefied and, in the lower two-thirds, is covered by a subperiosteal layer of new bone, which has a finely, irregular surface. In the middle portion of the shaft only one longitudinal half of the bone remains, but at the lower end nearly the whole circumference. The lower extremity is almost destroyed, and above the lower end is a large oval cloaca. Two long, irregular sequestra, lie loose in the medullary cavity.

M.N. 409.

TIBIA (LEFT): Rarefying Ostitis, Necrosis, Formative Periostitis, Osteo-Myelitis. 97·6:54·4
97·6:44·7
97·6:55·1

The non-necrosed original bone tissue which exists at the upper and lower ends, and along the length, in greater or smaller quantity, is very rarefied. The old shaft is partially invested in an involucrum, which is deficient on the inner side for almost the whole length, and on the outer side above, exposing a large, very irregular sequestrum at the upper end, and smaller irregular sequestra along the rest of the shaft.

M.N. 410. Mr. Turner.

TIBIA: Chronic Osteomyelitis, Necrosis (Central), Formative Periostititis, and Ostitis. 97·6:54·4
97·6:55 3
97·6:55·1

The specimen includes the upper four-fifths of the tibia, but the upper epiphysis is lost. In the lower two-thirds the bone is much increased in width. The surface is fairly smooth, though finely pitted. The medullary cavity is greatly expanded, measuring $1\frac{1}{2}$ in. in diameter at the lower end of the specimen. The posterior wall of the cavity is deficient for $2\frac{1}{2}$ ins. from the lower end. The posterior surface presents a large cloaca $\frac{5}{8}$ in. in diameter, and above this two small excavations. On the internal surface, 4 in. from the lower end, is another cloaca $\frac{3}{8}$ in. in diameter. The upper end of the bone is much rarefied.

M.N. 411. Mr. Turner.

TIBIA and FIBULA (RIGHT): Chronic Osteomyelitis, Formative Periostitis, Condensing Ostitis, Cloacæ. 97·6:55·4 97·6:55·1 87:55·1

The weight of the bones is much increased, and the normal contour of both bones has been very much modified. Over the lower half they are anchylosed, and form a mass of condensed bone, showing many cloacal openings on the surface. At the lower end there is a large excavation communicating with the medullary cavity. There has been a large amount of new bone deposited throughout the bulk of both shafts; at the lower end the bone is comparatively smooth; but above, it shows many irregular osteophytic growths.

M.N. 412.

TIBIA (RIGHT): Chronic Osteomyelitis, Rarefying Ostitis, Formative Periostitis, Necrosis. 97·6:54·4 97·6:44·7 97·6:55·1

The bone has been divided transversely about its middle, and is held in position by a peg. The non-necrosed original bony tissue is rarefied. The whole of the shaft is formed by new subperiosteal bone which has a finely irregular surface, and is riddled by cloacæ. On the anterior aspect the bone is deficient in four places, exposing almost the whole of the original diaphysis as an irregular sequestrum.

M.N. 413.

TIBIA (RIGHT): Necrosis, Sequestrum, Osteomyelitis, Formative Ostitis, and Periostitis. 97·6:54·4 97·6:55·1 97·6:44·7

The remains of original bone are rarefied and partly destroyed at the ends. The whole of the shaft is formed by new subperiosteal bone, which has two cloacæ in it towards the lower end. The upper portion of the involucrum is largely deficient, exposing the irregular sequestrum of the original shaft.

M.N. 414.

TIBIA; Chronic Osteomyelitis, Necrosis, Sequestrum, Formative Periostitis. 97·6:54·4 97·6:44·7 97·6:55·1

The shaft is formed by new subperiosteal bone, which has an irregular surface, and presents a large deficiency anteriorly; below which are two cloacæ. There is a large cloaca posteriorly. The original bone forms a dense, white, rough sequestrum with irregular ends. The lower extremity of the bone is normal.

M.N. 415.

THE SHAFT OF THE TIBIA (LEFT): Chronic Osteo-Myelitis Rarefying Ostitis, Necrosis, Formative Periostitis and Ostitis. 97·6:54·4 97·6:55·1 97·6:44·7

The bone is much lighter than normal, but is thickened by a deposit of very spongy subperiosteal bone over the whole shaft, except in the middle portion of the internal surface and anterior border. The whole non-necrosed shaft is much rarefied. There is a large deficiency of bone $2\frac{1}{2}$ inches long in the upper part of the internal surface, which exposes two sequestra, each about $2\frac{1}{2}$ inches long. Below the deficiency is a cloaca $\frac{1}{2}$ inch in diameter. Numerous other excavations and cloacæ are present in the upper end of the shaft, and on the internal and posterior surfaces. There is a small loose sequestrum lying in the lower part of the bone.

M.N. 419.

TIBIA, UPPER EPIPHYSES AND SHAFT: Osteo-Myelitis (Chronic), Rarefying Ostitis, Necrosis, Absorption of Necrosed Bone, Formative Periostitis. 97·6:54·4 97·6:55·4 97·6:55·1

The bone is broken in two. The upper epiphysis is much rarefied, and its articular surface is almost completely destroyed. The involucrum is of soft, spongy bone, and is perforated by numerous cloacæ. The medullary cavity is filled by very spongy bone, and lying on it are necrosed fragments of the original shaft, which has a "worm-eaten" appearance; they are larger and more numerous in the lower half. The lower end is destroyed.

M.N. 422.

FEMUR (LEFT): Atrophy, Periostitis. 97·3:55·1
97·3:41
97·4:50

The lower end of the femur is irregular in outline, and freely pitted as the result of chronic arthritis (probably tuberculous) of the knee-joint. A slight osteophytic deposit of the thickness of writing paper, spreads from the front of the condyles upwards to the junction of the middle and lower thirds of the bone, and thence running round the entire shaft extends upwards to the neck. A small patch of similar deposit is present on the neck itself. The entire bone is very light, its surface smooth and devoid of the normal irregularities and its circumference is diminished.

M.N. 435. Mr. Turner.

FEMUR: Rarefying Ostitis, Caries, Necrosis. 97·3:55·2
97·3:44

The specimen shows the upper end of the femur. The head is greatly rarefied, and in great part destroyed, and almost separated along the epiphyseal line from the neck. The neck is rarefied and at the outer end of its anterior aspect is a large, irregular sequestrum, partially covered by a deposit of new bone. The shaft is also rarefied.

M.N. 437.

PHALANX OF GREAT TOE: Rarefying Ostitis, Necrosis. 97·8:55·4

The specimen consists of the distal end of the proximal phalanx. The bone is rarefied and is necrosed.

M.N. 447.

TIBIA AND FIBULA (LEFT): Ostitis. 97·6:55·2
97·6:55·4

The bones are much lighter than normal, the surface is extremely irregular from caries and necrosis, and the remaining bone is much rarefied. The head of the tibia is less affected than that of the shaft; there is, however, rarefaction and some necrosis on its articular surface. At the lower end of the upper fragment is a trephine hole. The lower portion shows bony anchylosis of the tibia and fibula.

M.N. 448.

FEMUR (LEFT) : Rarefying Ostitis, Formative Periostitis. 97·3:55·2
87:55·1

The bone is lighter than normal, and the neck, in front and behind, and the posterior aspect of the shaft show a considerable amount of newly-formed bone of loose texture. There has been considerable erosion of the head, with exposure of the cancellous bone over nearly the whole of it. The Haversian canals seen in the compact bone are widened.

M.N. 455.

FEMUR (LEFT) : Formative Periostitis and Ostitis. 97·3:55·1
87:55·1

The bone is increased in weight. The antero-posterior curve of the shaft is slightly exaggerated. The middle portion has a fusiform shape from the greater thickness due to new bone-formation. The anterior surface above and below the swelling, is marked by longitudinal grooves, and is smooth. Over the swelling it is slightly rough. In the middle of the swelling, on the external aspect, are two holes, probably cloacæ. Spongy new bone deposit forms a ridge along the insertion of the gluteus maximus and along the linea aspera.

M.N. 456.

FEMUR (LEFT) : Formative Periostitis. 97·3:55·1
97·3:24
97·3:55·2
87:55·1

The bone is somewhat increased in weight. The upper third of the shaft forms with the remainder a distinct angle opening backwards, and the shaft has become twisted so that the head lies more anteriorly than it should do. Almost the whole length of the shaft is covered by a deposit of subperiosteal bone which is rough and pitted. The upper and lower extremities are not affected. Scattered about the shaft are several small cavities due to loss of bone.

M.N. 458.

FEMUR (LEFT): Formative Periostitis and Ostitis. 97·3:55·1
87:55·1

The head and the great and small trochanters are broken off. The specimen is sawn transversely into three pieces. The bone is increased in weight and in bulk. The surface is porous, and anteriorly rough. The upper section shows the oval shape of the shaft at that level, and the bone is spongy, except for a column internally. The outline of the old shaft is easily recognised, though it is almost completely replaced and surrounded by spongy bone. The lower section is nearly circular, with a diameter of 4·5 c.m., and the medullary cavity has a diameter of 1·5 c.m. At this level the whole bone is dense.

M.N. 459.

FEMUR (RIGHT): Formative Periostitis, Ostitis, Deformity. 97·3:55·1
97·3:24

The bone is considerably increased in weight, and it shows an antero-posterior curve with its convexity forwards. About the junction of the middle and lower third of the shaft the anterior surface is surrounded by a layer of dense new bone laid down by the periosteum. On the posterior aspect of the shaft the edges of this layer of new bone are clearly defined. There is a considerable deposition of hard bone along the line of the linea aspera, and here the new tissue is in the form of strands and ridges. There is some degree of osteoporosis near the lower epiphysis.

M.N. 462.

FEMUR (LEFT): Formative Periostitis and Ostitis, Syphilis? 97·3:55·1
97·3:55·2
87:55·1

The bone is increased in weight and presents an exaggeration of the curvature of the shaft, and a sinuous outline on the internal surface. The surfaces are rough except laterally. The whole of the shaft and great trochanter are much thickened by a deposit of new bone, especially on the internal aspect. The middle of the shaft appears constricted, owing to a smaller deposit of bone there. Anteriorly immediately above the articular surface the bone is rarefied.

M.N. 463.

FEMUR (LEFT): Formative Periostitis and Ostitis, Condensing Ostitis. 97·3:55·1
87:55·1

The bone is greatly increased in weight. The shaft, in transverse section, is oval above, but more nearly circular below. New bone is deposited slightly on the linea aspera, to a greater extent on the anterior surface, especially below, but in greatest amount on the internal and external aspects, giving a maximum width of 6·2 c.m. The section shows great thickening of the compact tissue of the shaft, which is, however, somewhat spongy at several places.

M.N. 466.

FEMUR (RIGHT): Formative Periostitis, Condensing Ostitis. 97·3:55·1
87:55·1

The bone is increased in weight. The lower half of the bone is much enlarged by a deposit of fairly dense new bone around the whole circumference of the shaft. The anterior surface is moderately rough and pitted, and the posterior is extremely rough and nodular. At the lower end of the popliteal surface is an almost circular cloaca $\frac{3}{8}$ in. in diameter.

M.N. 467.

FEMUR (LEFT): Necrosis, Formative Periostitis, Condensing Ostitis, Chronic Osteo-Myelitis. 97·3:54·4
97·3:55·1
97·3:55·4

The bone is increased in weight. The shaft is bent at the junction of its upper and middle thirds, thus increasing the general antero-posterior curve. The upper third of the shaft is partly covered by a thin layer of new subperiosteal bone faintly marked with longitudinal grooves on the anterior surface. The lower two-thirds is thickened by a deposit of new bone, fairly dense. Opening on the anterior surface are two large cloacæ, and in the lower of these is a sequestrum. The posterior surface is continued externally on to a ridge of bone which projects on the postero-lateral aspect of the shaft. On the posterior surface 5 in. from the lower end is a cloaca, in the bottom of which lies a sequestrum.

M.N. 468.

FEMUR (LEFT): Formative Periostitis and Ostitis. 97·3:55·1

The bone is somewhat increased in weight. The antero-posterior curve is slightly accentuated. The shaft appears to be flattened from before backwards by a deposit of dense new bone in the upper $^4/_5$th, which is, however, of but small amount except internally, where it is very abundant. The section shows thickening of the compact tissue of the shaft.

M.N. 470.

FEMUR (RIGHT): Formative Periostitis and Ostitis. 97·3:55·1
87:55·1

The bone is increased in weight. The lower half of the shaft is thickened by a deposit of dense new bone, which is most abundant anteriorly and laterally. The section shows a great thickening of the internal wall of the medullary canal, with fairly dense bone.

M.N. 471. Mr. Turner.

TIBIA (LEFT): Formative Periostitis and Ostitis. 97·6:55·1
87:55·1

The bone is heavier than normal. There is a slight curvature of the shaft at the junction of the middle and lower thirds. New subperiostal bone has been deposited on almost the whole of the shaft, but it is most marked in the middle half of the bone on the internal surface and anterior border.

M.N. 472.

TIBIA (RIGHT): Formative Periostitis. 97·6:55·1
87:55·1

Over the greater part of the surface of the tibia a layer of new bone, dense in texture, has been laid down from the periosteum. There is also distinct evidence of osteoporosis in the widening of the Haversian canals, seen on the outer surface of the bone, immediately beneath the upper articular surface. The weight of the bone is considerably increased.

M.N. 473.

TIBIA (RIGHT) : Formative Periostitis and Ostitis, Syphilis? 97·6 : 55·1
87 : 55·1

The bone is somewhat increased in weight. The shaft presents slightly abnormal curves and is thickened in its upper two-thirds by a deposit of new bone, which is not very dense and which is most abundant on the internal surface. The surface of the new bone is finely pitted.

M.N. 476.

TIBIA (RIGHT) : Formative Periostitis. 97·6 : 55·2
87 : 55·1

The shaft displays an irregular thickening throughout its entire extent, becoming here and there osteophytic in character; while the head of the bone shows considerable widening of the Haversian canals.

M.N. 477.

TIBIA, FIBULA (LEFT): Formative Periostitis and Ostitis, Condensing Ostitis, Cloacæ, Anchylosis. 97·6 : 55·1
97·6 : 24·1
88 : 42·9

The fibula is increased greatly in weight, and enormously in bulk, being larger than the tibia; it is very dense. The posterior aspect is somewhat rough. The external surface, about one-third down the shaft, presents a small cloaca leading to a central cavity, and 8 c.m. from the lower end there is a deep excavation, which also opens on the internal aspect by a small foramen. The anterior border is interrupted 13 c.m. from the upper end by two saw cuts. These cuts both open the central cavity, and the lower one shows rounding-off of its edges. Ossification has taken place along the interosseous membrane, resulting in anchylosis of the fibula to the tibia. The lower tibio-fibular articulation is anchylosed. The tibia shows little change except thickening at the anchylosed parts.

M.N. 478.

TIBIA (LEFT): Formative Periostitis, Condensing Ostitis. 97·6:55·1
87:55·1

The bone is much increased in weight. The shaft is thickened by the deposit of a layer of dense new subperiosteal bone. The upper part of the posterior surface is very rough, and presents a deep almost tubular groove. About $3\frac{1}{2}$ inches from the upper end, on the internal surface, is a depression $\frac{1}{2}$ inch in length, due to a small abscess.

M.N. 480.

TIBIA, FIBULA, ASTRAGALUS: Rarefying Ostitis, Formative Periostitis, Anchylosis, Osteo-Myelitis. 97·6:54·4
86:54·4
87:55·1
97·7:24·1

The bones are lighter than normal. The medullary cavities of the tibia and fibula are much enlarged. Subperiosteal new bone is deposited, especially on the outer surface, posterior external border and lower end of the tibia, and over the fibula generally, especially at its lower end, which is greatly enlarged. At the lower end of the internal surface is an irregular round mass of new bone somewhat raised above the general surface. The lower end of the fibula is anchylosed to the tibia for a distance of 3 inches. The astragalus is firmly anchylosed to the tibia and fibula.

M.N. 481.

TIBIA (RIGHT): Local Formative Periostitis. 97·6:55·1
87:55·1

A rounded, oval node, about 3 in. long, is situated along the middle of the anterior border. It is composed of bony tissue of uniformly loose texture, and in the neighbourhood, on the external aspect, strands of new bone have been formed from the periosteum. On section it is seen that there has been no encroachment on the medullary cavity at this point. The bone on the outer surface of the node is of a loose, open texture, but that at its base, seen on the surface of section, is very much condensed.

M.N. 482.

TIBIA: Formative Periostitis, Subperiosteal Node. 97·6:55·1
87:55·1

On the antero-external surface, about the middle of the shaft, there is a large, subperiosteal node, about 5 in. in length. The outer surface of the node is composed of uniform layers of bone of loose texture, while round the edges the bone is more uneven, and here it has been deposited in strands and ridges.

M.N. 483.

TIBIA (RIGHT): Rarefying Ostitis, Formative Ostitis, Formative Periostitis. 97·6:55·1
97·6:55·2
87:55·1

The bone is lighter than normal, and it has a very uneven surface. This is due to the deposition of new bone in a somewhat nodular formation, and the density of the new bone varies in places. The shaft, in consequence of the deposit, is thickened and more rounded than normal. The medullary cavity of the head is greatly enlarged, and the compact bone as seen on section is much rarefied, though thickened.

M.N. 484.

FIBULA (RIGHT): Formative Periostitis. 97·6:55·1
87:55·1

The bone is increased in weight and has an antero-posterior curve. It is somewhat thickened, and the surface has a "worm-eaten" appearance.

M.N. 485.

FIBULA (LEFT): Formative Periostitis. 97·6:55·1
87:55·1

The disease affects the lower two-thirds of the bone markedly, and the anterior aspect of the upper third slightly. In the lower two-thirds the bone is much increased in thickness, and the borders are prominent. The anterior border in its middle half is continued into a sharp knife-like edge. The surface of the new bone is pitted or grooved.

M.N. 486.

FIBULA (LEFT): Formative Periostitis. 97·6:55·1
87:55·1

The bone is heavier than normal. The thickness of the bone increases from above downwards from the deposit of new bone. The new bone is fairly dense, and the surface is somewhat rough and irregular.

M.N. 487.

FIBULA (RIGHT): Formative Periostitis. 97·6:55·1
87:55·1

The bone is roughened, and osteophytes have been deposited, especially along the borders of the shaft, and in great abundance at the lower end. The articular facet is carious.

M.N. 488.

METATARSUS: Formative Periostitis. 97·8:55·1
87:55·1

The 3rd and 4th metatarsal bones are much enlarged. Two processes of new bone, one from each of these two bones, are in apposition over a circular area about an inch in diameter. The processes project into the sole and on the dorsum.

M.N. 503.

FEMUR: Osteo-Myelitis, Necrosis, Sequestrum, Formative Periostitis, Condensing Ostitis. 97·3:54·4
97·3:55·4
97·3:55·1
97·3:44·7
87:55·1

The bone is much increased in weight. The shaft is considerably bent at its middle, the angle opening backwards. The anterior surface is somewhat rough and the posterior distinctly so. The shaft in the lower two-thirds is greatly thickened by deposit of dense new bone, having a circumference of 7 in. at the thickest part. On the inner side of the posterior surface, about 4 in. from the lower end, is a large cloaca, $\frac{3}{4}$ in. wide and 1 in. in length, though which projects a large sequestrum. The osteophytic new bone forms a bridge at the lower end of the cloaca.

M.N. 509. April, 1886. Mr. T. Jones.

TIBIA: Osteo-Myelitis. 97·6:54·4
96·6:44·7

The tibia has been bisected longitudinally and shows in the head and upper part a series of smooth-walled cavities, in two of which sequestra still remain. The large cavity shows a very distinct lining of granulation tissue. The sequestrum in the shaft shows superficial black marking, which is observed in long-standing inflammation of bone exposed to air and the action of discharges. The shaft is the seat of dense sclerosis.

M.N. 510. Sept. 24, 1886. Mr. Jones.

TIBIA and FIBULA (RIGHT): Chronic Osteo-Myelitis. 97·6:54·4
86:54·4
97·6:44·6

The whole of the tibia has been extensively excavated by suppuration in the medullary cavity. The upper articular surface of the compact bone of the shaft in two places has been destroyed, and large openings have formed (cloacæ). The inner surface of the cavity is smooth from the presence of granulation tissue. The general surface of the bone is roughened from inflammation of the periosteum. The fibula shows nothing abnormal.

M.N. 519. Prof. Young.

TIBIA: Abscess. 97·6:54·5
97·6:55·2

Vertical section of the lower end of the tibia, showing an irregular cavity communicating with the exterior by means of a small sinus seen at the epiphyseal line posteriorly. The cavity is lined with a thick, pulpy mass of granulation tissue. The surrounding bone is thickened, and shows rarefactive ostitis. The surface of the bone is rough and eroded, and numerous apertures are seen on it, corresponding to the opened-up Haversian canals. The periosteum is easily separable, and the bone considerably thickened.

M.N. 520A.

FEMUR: Chronic Osteo-Myelitis. 97·3:54·4
97·3:55·1

The specimen shows three sections of the femur. In the whole of them the compact bone has been greatly increased in thickness, and in the lower two it may be seen that the medullary space has been converted into an abscess cavity lined by granulation tissue.

M.N. 520B.

FEMUR: Chronic Osteo-Myelitis. 97·3:54·4
97·3:55·1
97·3:44·7

This specimen consists of two transverse sections of the shaft of the femur. There is immense thickening of the compact tissue of the bone. In the upper of the two sections, the medullary cavity has been almost completely filled with compact bone; but it is still indicated by bone of a looser texture than that which surrounds it. In the lower of the two sections the cavity remains. It is lined by granulation tissue, and at one side of it there is a fragment of necrosed bone.

M.N. 521A. Mr. JONES.

FEMUR: Chronic Osteo-Myelitis. 97·3:54·5
97·3:55·1

This specimen shows the lower end and greater part of the shaft of the femur. The compact bone has been greatly increased in amount. The outline of the medullary cavity has been lost, and its place taken by an irregular series of rounded loculi with smooth walls. In the lowest of the series a small portion of necrosed bone remains. In the upper part of the specimen the bone has been sclerosed throughout. The periosteum is very greatly thickened, and the surface of the shaft is irregular.

M.N. 521B.

FEMUR: Chronic Osteo-Myelitis 97·3:54·5
97·3:55·1

This specimen is the other half of M.N. 521A, above.

M.N. 522. Dr. Cullingworth.

FEMUR; Hypertrophy in connection with Abscess Formation. 97·3:54·5
97·3:55·1

A portion of the femur has been divided by a mesial section. The whole bone is cancellous in structure, but in some parts the texture is much more dense than in others. The normal compact bone has disappeared, and its place is taken by a broad column of spongy bone. Spongy bone also fills up the medullary cavity, except at the points where the foci of suppuration had formed. There are found cavities, rounded in outline, and with smooth walls. The outer surface of the bone is rough and granular, and at the lower end of the specimen there is a well-marked area of erosion. At the upper end there is seen on the outer surface the opening of a sinus.

M.N. 524. Mr. Jones.

FEMUR: Osteo-Myelitis. 97·3:54·4
97·3:55·4
97·3:55·1

The specimen is the lower end and a portion of the shaft of the femur. The shaft of the bone has been extensively disorganised by chronic osteomyelitis. In the centre there is a honeycombed mass of necrosed bone; around this there has been formed a covering of new bone of very loose texture, and the part of the shaft which has escaped the necrosis has become very much thickened by the deposition of bone on its outer aspect. At some distance below the site of the sequestrum, a cloacal opening has been formed through the bone, the position of it being indicated by a rod of red glass. Inflammatory thickening round the bone generally has occurred, and abscess cavities have been formed, the walls of which are lined by granulation tissue.

M.N. 525. Mr. Whitehead.

FEMUR: Abscess. 97·3:54·5
97·4:54·4

The lower end of the femur has been cut transversely. The line of section has passed through an abscess cavity, and the lumen of a sinus situated above the inner condyle. The articular surface of the bone shows no well-defined change, but the roughness and whiteness of the inter-condylar tissue suggests that suppurative inflammation has occurred in the soft tissues of the joint.

M.N. 526.

FEMUR: Chronic Osteo-Myelitis. 97·3:54·5
97·3:55·1
97·3:55·2
97·3:55·3

This specimen shows the lower end, and the greater portion of the shaft, of the femur. The bone has been divided in the middle line. The cut surface shows that there has been a large amount of thickening of the compact bone in the shaft. The medullary cavity, at the lower end especially, is to a large extent obliterated by overgrowth of the cancellous bone. Immediately above the lower epiphyseal line there is a cavity in the bone, due to inflammatory caries. About 2 inches above this there is an abscess cavity which had communicated with the surface by a large cloacal opening, and probably also by a smaller sinus, the whole length of which is seen in the line of section. The periosteum is thickened generally; but at two points it had become separated from the bone during life.

M.N. 527.

FEMUR: Osteo-Myelitis. 97·3:54·4
97·3:55·4
97·3:55·1

The fragment of the shaft of the femur shows great thickening of the compact bone and replacement of the marrow by inflammatory tissues. Smooth-walled abscess cavities occupied a considerable part of the medullary cavity.

M.N. 566. Mr. Jones.

TIBIA: Suppurative Arthritis. 97·6:54·5
97·4:54·4

This specimen is a vertical antero-posterior section through the knee-joint. The head of the tibia has been extensively excavated, leading to the formation of a large irregular cavity lined by granulation tissue. It is apparently confined to the bone, but at one point anteriorly it has almost reached the surface. The inflammation had extended to the knee-joint, and the articular cartilages are much eroded and irregular. Puckered skin is seen in the neighbourhood of a sinus, which has apparently been enlarged to admit a drainage tube.

M.N. 585.

TIBIA, FIBULA (LEFT): Tuberculosis (?), Caries, Formative Ostitis, Anchylosis. 97·6:55·2, 97·6:55·1, 97·7:24·1, 87:55·1

The external and internal malleoli and a large portion of the lower end of the tibia have been destroyed, leaving a bare carious surface looking downwards and inwards. There is a large curved osteophytic mass projecting inwards from the posterior and upper corner of the carious surface. The lower end of the fibula is much thickened by spicular new bone formation. The postero-external border is raised into a sharp ridge for about $2\frac{1}{2}$ in. near the lower end.

M.N. 586.

TARSUS AND METATARSUS, excepting the FIRST and THIRD METATARSALS: Caries, Formative Periostitis, Anchylosis. 97·8:55·2, 97·8:55·1, 97·9:24·1

The bony mass is lighter than normal. The os calcis, cuboid, astragalus and scaphoid, especially, show patches of caries, and the interior of the bones is much rarefied. The whole of the bones are anchylosed together, and all show irregular deposits of subperiosteal new bone on their surfaces; this is most abundant over the dorsal and plantar surface of the tarsus, anterior to the astragalus.

M.N. 590. Mr. JORDAN.

TIBIA, FIBULA, ASTRAGALUS, OS CALCIS (LEFT): Formative Periostitis, Ostitis, Anchylosis. 97·6:55·1, 87:55·1, 88:42·9, 97·7:24·1

The bones are increased in weight. Subperiosteal new bone is deposited on all the surfaces. The tibia and fibula are anchylosed together by new bone formation in the interosseous ligament for a distance of 3 inches from the lower end. The astragalus, os calcis, tibia, and fibula, are all anchylosed together into one mass of bone. The section of the tibia and fibula shows obliteration of their medullary cavities.

M.N. 627.

OS INNOMINATUM, FEMUR (RIGHT): Formative Ostitis, Condensing Ostitis, Anchylosis. 97·1:55·4 97·2:24·1 97·3:55·1

The bones are increased in weight. The head of the femur has disappeared and the neck is completely anchylosed to the acetabulum. The femur is in the position of great flexion and adduction. There is a deep carious cavity in the articular portion of the pubis. The lower section of the femur is very dense.

M.N. 637. Mr. Jordan.

FEMUR, TIBIA, FIBULA, PATELLA (RIGHT): Necrosis, Formative Periostitis and Ostitis, Condensing Ostitis, Anchylosis. 97·3:55·4 97·3:44·7 97·3:55·1 97·4:24·1

The tibia is flexed on the femur to an angle rather less than a right angle, and is rotated outwards. The surfaces of the bones are for the most part smooth and dense, except over the internal condyle where the surface is broken. The femur is much enlarged and deformed by a deposit of new bone, and presents on its antero-internal aspect two cloacæ leading to a large cavity in the bone, 8 c.m. long, in which are some loose sequestra, and some partially separated necrosed bone. The upper part of the section shows sclerosis with obliteration of the medullary cavity. The patella is anchylosed to the external condyle and the tibia is anchylosed to the femur by three massive bony columns, the external and posterior of which are partly fused together, and are separated from the internal column by a tunnel about 5 c.m. long. The tibia and fibula show sclerosis, and are anchylosed together. The femur is very much sclerosed.

M.N. 643.

FIBULA, TIBIA: Chronic Osteo-Myelitis. 97·6:54·5 97·6:44

The fibula is much thicker than normal, except in the middle portion of the specimen where the bone is rarefied, and in great part destroyed, leaving only the anterior aspect. The surface is rough. Just below the excavation posteriorly is a thick spur of bone projecting upwards. The fibula is anchylosed to the tibia opposite the upper and lower ends of the affected area.

M.N. 648.

OS INNOMINATUM (LEFT): Formative Periostitis. 97·1:55·1

The iliac portion of the acetabular rim is flattened and thickened by osteophytic bone. There are prominent small nodules of bone along the attachment of the obturator membrane, on the spine of the ischium, and on the pubis.

M.N. 938. D.B. 861. Feb., 1888. Mr. Jones.

TIBIA: Suppurative Ostitis. 97·6:54·5
97·6:55·3
97·6:55·1

In the head of the tibia, about 2 in. below the articular surface, is a cloacal opening leading into a cavity which occupies the centre of the bone; it is lined by granulation tissue. Around the cavity there is a considerable degree of osteosclerosis.

M.N. 943.

OS INNOMINATUM, FEMUR (RIGHT): Rarefying Ostitis, Formative Ostitis. 97·1:55·2
97·1:55·1
97·3:55·2
97·3:55·1

The os innominatum is extremely light, and the bone is highly rarefied. The femur is much lighter than normal, and the original bone is much rarefied. Several very spongy bony excrescences are attached to the shaft, the largest of which is on the outer surface. Below this is a layer of new bone almost surrounding the shaft for a short distance, which has an abrupt upper margin anteriorly and laterally.

M.N. 945.

TIBIA and FIBULA (RIGHT): Chronic Osteo-Myelitis, Necrosis, Formative Periostitis. 97·6:55·4
97·6:55·1
87:55·1

Somewhat above the middle of the shaft of the tibia, there is a solution of continuity, having a maximum extent of 4 in.; the ends of the remaining fragments are roughly bevelled and spiculated. In the centre of the exposed end of bone fragment is seen a sequestrum of loose texture. The outer surface

of the tibia, over nearly the whole extent, is covered by a layer of new bone of loose texture, coral-like in character. The fibula shows throughout a marked deposition of bone from the periosteum, dense in character, and running in ridges and spicules, especially along the borders and the line of attachment of the inter-osseous ligament.

M.N. 2294. Mr. Stanmore Bishop.

TIBIA: Inflammatory Erosion. 97·6 (85) : 55·3

The specimen is a section of the tibia, which shows absorption of the articular cartilage consequent on traumatic synovitis.

M.N. 2634. Mr. Wright.

FEMUR (UPPER END): Chronic Osteo-Myelitis. 97·3 : 54·5
97·3 : 55·4
97·3 : 55·1
85 : 44

In this case the disease had commenced in the shaft, and spread upwards to the joint. The limb was amputated.

M.N. 2688. Mr. Wright.

OS INNOMINATUM, FEMUR: Acute Suppurative Arthritis. 97·2 : 54·4
97·3 : 44
85 : 44

The epiphysis is entirely destroyed and the surrounding tissues are infiltrated and much thickened.

History. Good. No cause. Duration 1 month. March 15, 1884: Pale, anæmic. Large abscess on left hip. March 17: Re-explored. Head of bone gone. No reaction in wound; did fairly well but no signs of repair. April 9: Died. Post mortem: Much thickening round hip joint with suppuration, an opening at upper part of the joint; joint surface destroyed. Head of bone gone, only stump of neck remaining. Surface of acetabulum covered with granulation tissue.

The patient was a male aged 9 months.

M.N. 2696. Mr. Wright.

FEMUR (UPPER PART OF SHAFT): Formative Ostitis. Periostitis (Osteophytes). 97·3:55·1

History. Hip excised in 1878. Sent out with necrosis of pelvis, discharge; 3 ins. shortening. May 30, 1881: Anæmic; large liver; 3 ins. shortening. Much discharge. Amputation. Soft tissues infiltrated. Quantity of new bone formation. Pelvic disease. Aug. 27, 1881: Discharge. Much improved, but with sinuses. Dec., 1881: Can run on crutches.

The patient was a male aged 6 years.

M.N. 2697. Mr. Wright.

OS INNOMINATUM, FEMUR (UPPER END): Acute Suppurative Arthritis. 97·2:54·5 85:44

History. Good. Whooping cough at 4 months. Chicken-pox 3 weeks ago. Swelling about hip noticed 3 weeks ago. June 28, 1884: Anæmic; rickety. Rhonchi over both lungs. Large abscess opened. Small opening felt in joint. Head bare. July 2: Wound shows no sign of repair. July 10: Very sick. Died.

The patient was a male, aged 8 months.

M.N. 2698. Mr. Wright.

SCAPULA, HUMERUS, FEMUR: Acute Arthritis. 97·2:54·4 96·3:54·4

History. A "cross birth." Vomiting and pain for few days. Nov. 5, 1880: Right shoulder surrounded by swelling. Nov. 6: Abscess opened. No opening found in joint capsule. Nov. 17: Swelling over right parotid. Abscess over lower part of sacrum. Nov. 19: Large abscess round left hip. Leg œdematous. Abscess opened. Dec. 4: Explored. Joint disorganised. No trace of head left. Few bony granules representing head and neck. Died. Acetabular cartilage, soft, not destroyed. Cutaneous pyæmic abscesses. Upper end of femur, slight amount of new bone. Right shoulder destroyed. Head of humerus gone. Sacral abscess. Abscess in liver, kidney and lungs, with pneumonia.

M.N. 3051. July 28, 1902. Mr. Southam.

TIBIA: Chronic Abscess of the Head. 97·6:54·5
97·4:55·1

The head of the tibia has been sawn across to show an abscess cavity in its interior. The knee-joint is anchylosed. A glass rod has been placed in the path of the trephine, and is seen entering the rounded abscess cavity. The wall of the cavity is composed of decalcified necrotic-looking tissue.

The patient was a female, aged 34 years, with a history of two years' pain and swelling of the head of the tibia and stiffness of the knee. The patient also suffered from phthisis and tuberculous adenitis of the neck. The head of the tibia had been trephined and the abscess cavity drained thirteen months previously. Amputation was performed on July 28, 1902.

M.N. 3155. Mr. Southam.

FIBULA: Acute Necrosis. 97·6:54·4
97·6:55·4
97·6:21·6

An incision has been made along the fibula showing the periosteum stripped from the bone for three-quarters of its length. Spontaneous fracture has occurred just below the head of the fibula, and the bone at this point is softened and eroded. An incision along the tibia shows healthy periosteum adherent to the bone. The articular ends of the bone are unaffected. The soft parts are infiltrated and œdematous, and show an extending necrosis, the area of which is discoloured by extravasation of blood.

The patient was a boy, aged 13 years. Eighteen days previously he complained of pain in the leg. An abscess formed over the upper end of the fibula, and burst after ten days. Five days later free incisions were made, and the knee-joint, which was found to contain pus, was drained. Later, amputation was performed, April 21, 1904.

M.N. 3205. D.B. 4559.

FEMUR: Osteo-Myelitis and Sclerosing Ostitis. 97·3:54·5
97·3:55·1

The lower half of the femur has been bisected. The outer surface of the bone is somewhat irregular, especially along the linea aspera, where one or two osteophytes have formed, and there has also been some formation of new bone from the periosteum, over the surface generally. Along with this there has been extensive proliferation of bony tissue, resulting in the total obliteration of the medullary cavity and the filling up of it by very dense bone. Immediately above the epiphysis may be seen the remains of an abscess cavity and sinuses, lined by pyogenic granulation tissue.

M.N. 3206. D.B. 4257. Nov. 28, 1904.

FEMUR: Osteo-Myelitis. 97·3:54·5
97·3:55·1

The lower part of the femur has been bisected. The outline of the bone is very irregular from the formation of new bone. The inflammation has affected the whole of the medullary cavity, and its lumen is occupied by irregular yellow fragments of sequestra, and is lined with smooth granulation tissue. The new bone is dense in texture, but the epiphysis which is beyond the area of inflammation is very much rarefied.

The patient was a man aged 31 years. The bone had been diseased for 17 years, and sinuses had persisted during that time. The condition was acute at first, and followed a slight injury. The thigh was amputated Nov., 1904.

M.N. 3207. D.B. 4560. Nov. 15, 1904. Mr. Collier.

FEMUR: Osteo-Myelitis. 97·3:54·5
97·3:55·1

This specimen consists of the lower half of the femur, which has been laid open. The medullary cavity is totally obliterated by the formation of somewhat dense bone, and in the lower part of the specimen are seen several abscess cavities lined by smooth granulation tissue.

The patient was a woman aged 50 years. The disease of the bone had com-

menced 20 years previously, and septic sinuses leading to the bone had persisted since that time. For two years the knee had been quite stiff. The knee-joint was anchylosed in a somewhat flexed position, and there were three septic sinuses and a good deal of cellulitis around the lower end of the femur. Amputation of the thigh was performed Nov. 15, 1904.

M.N. 3240. D.B. 4556. Feb. 4, 1903. Mr. Wright.

KNEE-JOINT: Suppurative Arthritis. 97·4:54·4

The cavity of the knee-joint is extensively disorganized by septic inflammation. The articular surfaces are almost completely hidden by the thick, irregular mass of tissue, formed by inflammation of the synovial membrane. There is also some flaky, fibrinous exudation, deposited on the surface. The articular cartilages, on the inner side of the joint especially, are considerably roughened and eroded.

The patient was a man aged 58 years. Septic arthritis of the knee followed an injury 5 weeks previously. The thigh was amputated Feb. 4th, 1903.

M.N. 3458. D.B. 4257.

FEMUR: Chronic Osteo-Myelitis. 97:3(86):54·4
97·3:55·1
97·3:55·5

The outer surface of the bone is very irregular, and at one point there is a large depression, at the bottom of which there is a rounded cloacal opening leading into the medullary cavity. The compact bone at other areas shows marked sclerosis, and this new bone has almost completely filled up the medullary cavity. In the neighbourhood of the sinus, and lying along the medullary cavity are a number of irregular pieces of necrosed bone of a whitish-yellow appearance. The cancellous bone at the articular end shows sclerosis. One articular cartilage is rough, and, at some points, has been almost completely worn away.

M.N. 3540. D.B. 4675. July 29, 1903. Mr. Southam.

TIBIA: Osteo-Myelitis. 97·6:54·4
97·6:55·1

The lower two inches of the tibia are the seat of chronic osteomyelitis, and show a greenish centre in which there is an open network of fine trabeculæ, with masses of necrotic material occupying some of the spaces. The surface of the bone, over this area and above the internal malleolus, is eroded; otherwise the area is surrounded by a zone of selerosis.

The patient was a woman, aged 45 years. The disease of the bone was of eight months' duration, and had commeneed with the formation of an abscess in the overlying tissues. The leg was amputated July 29, 1903.

M.N. 3586. D.B. 4671. July 31, 1905. Mr. J. W. Smith.

FEMUR: Osteo-Myelitis and Necrosis. 97·3:55·1
97·3:54·5
97·3:44

The specimen is the lower two-thirds of the femur. Corresponding to the medullary cavity of the lower part of the bone is a large spindle-shaped cavity lined by rough granulation tissue, and eommunicating by a cloaeal opening with the surfaee. At the upper part of this cavity there is a bony sequestrum about $1\frac{1}{2}$ in. in length. The upper part of the femur shows marked sclerosis, and at one point the medullary cavity has been obliterated, while lower down, where the bone has been thickened, the sclerosis has occurred only in portions. The cartilage of the joint has been, to a considerable extent, destroyed.

The patient was a man, aged 47 years, who had suffered from necrosis of the lower end of the femur for thirty years. There had been several discharging sinuses, and four operations had been performed for the removal of necrosed bone. The thigh was amputated July 29, 1905.

M.N. 3620. D.B. 4716. Mr. Platt.

KNEE-JOINT: Septic Arthritis. 97·4:54·4
81 (08·3):55·3

A dissection has been made to expose the interior of the knee-joint. The crucial ligaments and the semilunar fibro-cartilages have been completely destroyed by inflammation. The articular cartilage covering the ends of the femur and tibia has also been extensively destroyed, but some portions still remain at the margins. The ulcerated surface of the exposed bone is roughened and of a dark red colour. The soft structures around the ends of the bones are infiltrated with inflammatory exudation. A sinus can be seen opening on the skin overlying the inner tuberosity of the tibia.

M.N. 3621. D.B. 4737. Mr. Wright.

FEMUR: Osteo-Myelitis. 97·3:54·4
97·3(87):54·5

The femur is that of a young subject, and part of the epiphyseal line can still be clearly made out. Above the epiphyseal line and for nearly the whole length of the specimen the medullary cavity is seen to be occupied by a somewhat ragged yellowish inflammatory tissue. This tissue has encroached on the epiphyseal line over fully one-half of its extent, and has slightly invaded the epiphysis. On the posterior surface of the shaft, at its lower end, there has been an extensive periostitis, and the inflammatory tissue which has been deposited forms an irregular lining to an abscess cavity. The articular cartilage is intact, but the soft structures are deeply congested.

M.N. 3711.

FEMUR: Chronic Osteo-Myelitis. 97·3:54·4
97·3:55·1
97·3:55·2

The femur has been bisected by a longitudinal antero-posterior incision. The contour of the bone is markedly changed by an irregular deposit of sclerosed bone. Along the line of the medullary cavity there is a series of irregular spaces with fairly smooth lining of granulation tissue. At the epiphysis, there are signs of rarefaction, though along the shaft sclerosed bone has encroached on the cavity of the medulla.

M.N. 3712.

FEMUR: "Acute Necrosis." 97·3:54·4

The bone has been bisected longitudinally. The periosteum has been stripped off the bone and has left a smooth surface, except in places where there has been a rapidly produced erosion. Along the anterior aspect there is a very irregular layer of new bone which has been laid down by the periosteum; but it is not immediately continuous with the osseous tissue of the femur. The medullary cavity shows much disintegration and irregular cavitation, and some of the cavities have a smooth lining of granulation tissue. There are no large sequestra.

BONES AND JOINTS OF THE LOWER EXTREMITY: SPECIFIC INFLAMMATIONS.

M.N. 403. April 3, 1889. Dr. Martin.

FEMUR: Tuberculosis.

97 · 4 : 56 · 1
97 · 3 : 56 · 1
97 · 3 : 44 · 7
97 · 3 : 44 · 6
85 : 44

The knee-joint has been opened anteriorly by removal of the patella. The focus of disease is situated in the epiphysis of the femur, and there is seen a large excavation involving bone and cartilage, and at the bottom of the cavity are seen masses of necrosed bone. The synovial membrane is thickened from tuberculous infiltration. The inner condyle of the femur is much enlarged, and immediately above it there is the opening of a tuberculous sinus. The head of the tibia is normal.

M.N. 460.

FEMUR: Formative Periostitis, Condensing Ostitis, Deformity, Syphilis.

97 · 3 : 56 · 3
97 · 3 : 55 · 1
97 · 3 : 55 · 2
87 : 55 · 1

The lower two-thirds of the femur has been preserved. The bone is much heavier than normal. The surface of the shaft is irregular. Subperiosteal new bone is deposited on nearly the whole of the shaft, causing the antero-posterior diameter to be much greater than the lateral. The upper 3 inches of the shaft presents anteriorly a curved prominence 3 in. long, and posteriorly a deep groove, causing an appearance of bending of the shaft. Immediately above the articular surface, both anteriorly and posteriorly, in the middle line, the bone shows rarefaction. On the posterior surface, $7\frac{1}{4}$ in. from the lower end, is a small cloaca. The upper section shows obliteration of the whole medullary space by bone.

M.N. 465.

FEMUR (LEFT): Formative Periostitis, Condensing Ostitis, Deformity, Syphilis. 97·3:56·3
97·3:55·1

The bone is much increased in weight. The surface is rough anteriorly and posteriorly, but smooth at the sides. The shaft shows several slight curves in different directions, and is much thickened by a deposit of subperiosteal new bone.

M.N. 469.

TIBIA, ASTRAGALUS (LEFT): Rarefying Ostitis, Formative Periostitis and Ostitis, Anchylosis, Syphilis. 97·6:56·3
97·6:55·1
97·6:24·1

The bone is increased in weight and in size, and is bent slightly at about the middle of the shaft. In the upper fourth the bone presents several openings into the medullary cavity, and the bone tissue is much rarefied. The lower two-thirds of the shaft is much enlarged by a deposit of new bone, which has a rough surface posteriorly, and on the internal surface presents four nodes, varying from $\frac{1}{4}$ to $1\frac{3}{8}$ in. in length. The astragalus is completely anchylosed to the tibia.

M.N. 475.

TIBIA, (RIGHT); Formative Periostitis and Ostitis, Syphilis. 97·6;56·3
97·6;55·1
87:55·1

The bone is much increased in weight. The surface is marked by deep grooves, which are best seen on the internal aspect, where they run longitudinally. Dense new bone is deposited over the whole shaft, especially posteriorly.

M.N. 479. Mr. Jordan.

TIBIA (RIGHT): Periostitis, Ostitis, Nodes, Deformity. 97·6;56·1
87;56·1

The bone presents a distinct angle, opening backwards, in the middle of its length. The lower two-thirds of the shaft is much increased in thickness by a deposit of new bone. There is a node, $5\frac{1}{2}$ in. in length and 2 in. in breadth, on the internal surface and curving slightly upwards and outwards on to the anterior border, and ending above about the middle of the bone.

M.N. 502. Dr. Judson Bury.

FEMUR: Hereditary Syphilis. 97·3:56·3
97·3:55·1

The specimen, about 4 in. of the shaft of a femur from a boy, aged 9, shows enormous thickening, and sclerosis of the compact bone. A very irregular layer of new bone is found on the outer surface (proliferative periostitis). The medullary cavity is occupied by a meshwork of cancellous bone.

M.N. 504.

TIBIA (RIGHT): Necrosis, Formative Periostitis, Syphilis. 97·6:56·3
97·6:55·1
97·6:44·7

The bone has been bisected by a longitudinal cut from before backwards and outwards, and the antero-external half forms the specimen. The bone is greatly increased in thickness, especially in its lower two-thirds, and the normal outline is distorted. The surface is irregular, but fairly smooth. Near the middle of the anterior surface are two cloacæ, measuring $^{5}/_{16}$ in. in diameter, lying 2 in. apart. The sequestrum can be seen at the bottom of the cloacæ. The sequestrum consists of a large part of the shaft, and is free except at its ends. The sheath of new bone measures $\frac{3}{4}$ in. in average thickness anteriorly, and posteriorly $\frac{1}{4}$ in. The great thickness apparent anteriorly is due to the section being made through the ridge of new bone.

M.N. 538. Dr. Ransome.

OS INNOMINATUM (LEFT): Caries, Periostitis, Tuberculosis. 97·1:56·1
97·1:55·1
97·1:55·4

The whole of the articular surface of the acetabulum is carious, and periostitic new bone surrounds it, extending from the rim over the pubis to the pelvic brim; also over the dorsum ilii, and to the great sciatic notch. The newly-formed bone has a very loose open texture.

M.N. 547. Mr. Jones.

METATARSUS: Tuberculous Caries. 97·8:56·1
97·8:55·2
97·8:44·6
85:44

The metatarsal bone of the big toe, and the joints, are disorganized by tuberculous inflammation. The cartilage shows erosion and roughening. The cancellous bone of the shaft has undergone carious necrosis, and this has led to the formation of a cavity, which has communicated with the surface by a round opening about the middle of the shaft.

M.N. 549. Dr. Dreschfeld.

FEMUR: Arthritis (Tuberculous) of Hip. 97·3:56·1
97·3:55·2
85:44

The preparation shows sections of the head, neck, and upper portion of the shaft of the right femur. The synovial membrane seen round the neck of the bone, is thickened and rough. It is marked by numerous fringe-like processes. In parts the disease is seen to invade the articular cartilage, which is almost entirely destroyed, apparently having been detached *en masse*. The portions which still remain attached, are thinned and eroded. The head of the bone is universally roughened from subchondral caries, and the cancellous tissue is infiltrated with inflammatory products.

Microscopic examination reveals small-celled infiltration of the synovial membrane, with tuberculous granulations, and numerous giant-cells. Similar appearances existed in the bony cancelli.

The preparation is from a man of 40 years, who suffered from muscular rheumatism for some months, and then experienced acute pain in his right hip; this prevented him from walking. Rapid emaciation took place. Slight cough, with rise of temperature, supervened, and signs of lung disease became manifest. A few days before death there was sudden rise of temperature with dyspnœa. At the autopsy the right hip-joint was found entirely disorganised and distended, with thick purulent material. The round ligament was destroyed, and the acetabulum, like the head of the femur, was denuded of articular cartilage, and roughened. Both lungs were studded with numberless miliary tubercles.

M.N. 552.

FEMUR (HEAD): Tuberculosis. 97·3:56·1
97·3:55·2
85:44
97·3:24

The femur has been bisected vertically. The head of the bone has been eroded extensively, and the articular cartilage has almost disappeared. The cut surface shows that the compact bone has been very much reduced by atrophy. The cancellous bone has also been very extensively eaten away, and the spaces are filled with masses of red marrow, a similar change is found in the great trochanter and the shaft of the bone. The neck of the femur has been bent almost to a right angle with the shaft.

M.N. 553. Jan. 8, 1883. Prof. Young.

FEMUR (HEAD and NECK): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7
85:44

The cartilage is almost completely necrosed. The head of the femur has been cast off as a sequestrum, and the neck shows caseous necrosis.

M.N. 554. Mr. Southam.

FEMUR: Tuberculous Hip-Joint Disease. 97·3:56·1
85:44

The head and neck of the femur have been preserved. The cartilage is almost completely destroyed and the bone of the articular surface is extensively eroded. The synovial membrane at the margin of the articular surface is thickened.

M.N. 555.

HIP-JOINT: Tuberculous Arthritis.

97·1:56·1
97·3:56·1
97·3:44
85:44

The specimen includes the os innominatum, and head, neck, and upper part of the shaft of the femur. The whole texture of the joint has become disorganised. Acetabulum:—There is extensive erosion, and the edges of the cavity have, to a large extent, been destroyed. There is an opening on the outer surface of the bone, indicated by a rod of blue glass. The ligamentum teres has been destroyed. The inner surface of the joint cavity is lined by irregular, ragged, tuberculous granulations. Head of the bone:—The cartilage is completely destroyed. The head of the bone is largely eroded. Neck of femur:—A central necrosis has taken place, and the necrosed mass is seen lying at the base of a cavity. The edges of this cavity are rounded and covered with tuberculous granulation tissue. The soft tissues round this joint are thickened by tuberculous inflammation.

M.N. 556A. Mr. JONES.

FEMUR (HEAD): Tuberculosis.

97·3:56·1
97·3:44·2
97·3:55·2

Tuberculous inflammation has caused destruction of the articular cartilage and erosion of the bone, caries of the cancellous bone of the head, and destruction of the great trochanter, from the formation in it of caseous foci.

M.N. 556B. Mr. JONES.

FEMUR (HEAD): Tuberculosis.

97·3:56·1
97·3:55·2
97·3:44·2
85:44

The cartilage is almost completely destroyed. The head of the bone is eroded and covered with tuberculous granulations. The shaft shows well-marked rarefaction and caseation.

M.N. 559.

HEAD of RIGHT FEMUR: Tuberculosis, Caries. 97·3:56·1
97·3:55·2
85:44

The articular cartilage has almost entirely disappeared. A large portion of the head has been destroyed. The caries has also affected the under surface of the neck to a slight extent, and the anterior surface of the great trochanter is broken up by tuberculous softening.

M.N. 561. Jan., 1889. Dr. Richmond.

KNEE-JOINT: Tuberculosis. 97·4:56·1
85:44
97·4:23

The specimen shows the following structural changes:—Thickening of, and deposit on, the synovial membrane; necrosis of the cartilages on patella and femur; a small portion of the articular cartilage of the tibia remains; bone eroded and studded with tuberculous foci; dislocation of the tibia on the femur; osteoporosis of femur and tibia.

M.N. 563.

KNEE JOINT: Tuberculous Synovitis. 97·4:56·1

The specimen shows the patella, and a portion of the anterior and lateral ligaments of the knee, with the synovial membrane. The synovial membrane shows well the pouch which projects upwards beneath the quadriceps extensor. Everywhere it is thickened and pulpy, and the surface is slightly shreddy in parts. The articular surface of the patella is overlapped by the thickened synovial membrane, but the cartilage itself shows no definite changes.

M.N. 564. Mr. Jones.

KNEE-JOINT: Tuberculosis. 97·4:56·1
85:44
90:55·3

The articular cartilages are extensively destroyed. The bone has been eroded, and the synovial membrane is thick and rough from tuberculous inflammation.

M.N. 565. Mr. Bradley.

KNEE-JOINT: Tuberculous Arthritis. 97·4:56·1
85:44
81:53·3

The preparation has been made to expose the interior of the knee-joint. The articular surfaces show marked erosion of cartilage, and, to a slight extent, of bone, and the whole surface is covered by a ragged layer of inflammatory debris. On the outer aspect, just below the level of the knee-joint, is a large opening of a sinus. There is no history, but the condition is probably tuberculous in origin.

M.N. 567.

KNEE-JOINT: Tuberculosis. 97·4:56·1

The specimen shows the knee-joint opened anteriorly. The tuberculosis has affected all the structures of the joint. There has been extensive necrosis of cartilage and bone, and the whole surface is covered with irregular tuberculous granulations.

M.N. 569. Dr. Dreschfeld.

KNEE-JOINT: Tuberculous Arthritis. 97·4:56·1
85:44

The cartilages are extensively eroded and destroyed on all the articular surfaces. The synovial membrane surrounding the articular surfaces is thickened and replaced by tuberculous granulation tissue. This thickening is very marked in the region of the crucial ligaments, which have apparently been attacked by the tuberculous process. There was also in this case tuberculosis affecting the larynx, the small intestine, the kidney, and the spleen.

M.N. 571.

KNEE-JOINT: Tuberculous Arthritis.

97·4:56·1
97·4:54·2
85:44
97·6:55·2
81:55·3

The specimen has been prepared to expose the interior of the knee-joint from the front. There is marked ulceration of cartilage and erosion of bone. Almost the whole of the joint surface is covered by a thick layer of inflammatory deposit, giving it a rough, shaggy appearance. On the skin over the upper end of the fibula there is a small tuberculous ulcer.

M.N. 572.

KNEE-JOINT: Tuberculosis.

97·4:56·1
97·6:55·2
85:44
81:55·3

The knee-joint has been opened anteriorly, and the articular surfaces and the synovial membrane show a very copious, rough, irregular deposit of tuberculous exudate. The cartilage is destroyed and there is considerable erosion of bone, especially in the head of the tibia. On the skin over the inner side of the knee is the opening of an old sinus surrounded by exuberant granulation tissue.

M.N. 573A. Mr. JONES.

FEMUR: Tuberculosis and Anchylosis.

97·3:56·1
97·3:55·4
97·3:55·1
97·5:24
97·6:56·1
97·6:55·3

The specimen includes the femur (lower part), patella, and upper parts of tibia and fibula. The posterior surface of the femur shows extensive destruction of the bone, and the presence in it of cavities lined by smooth granulation tissue. Over the lower part of the affected area a thin scale of bone has been formed, and lies as a covering of the eroded surface of the shaft. The cancellous bone throughout the area shows marked caries. The patella is much atrophied, and has become united by osseous tissue with the anterior surface of the femur.

A large number of pits have been formed in the bone round the patella. The femur is united to the tibia by bony tissue. The tibia is extensively atrophied, and cavities have formed in the cancellous bone. The walls of these cavities are dotted with miliary tubercles.

M.N. 753B. Mr. JONES.

FEMUR: Tuberculosis and Anchylosis.

97·3:56·1
97·3:55·4
97·3:55·1
97·5:24
97·6:56·1
97·6:52·1

This specimen is the corresponding half of No. 573A. (See above.)

M.N. 575. Mr. SOUTHAM.

ANKLE-JOINT: Tuberculosis.

97·7:56·1
97·6:44·2
97·6:44
97·8:41

From the vertical antero-posterior section through the ankle-joint it is seen that the foci of disease are situated chiefly in the lower end of the tibia and the astragalus. The articular cartilages of both these bones have entirely disappeared. The epiphysis of the tibia, and the upper surface of the astragalus have been extensively necrosed and rarefied. The lower end of the diaphysis of the tibia shows a considerable area of caseation. All the bones show evidence of atrophy and rarefaction. On the skin, on the inner aspect of the limb, are the marks of an old sinus.

M.N. 577.

KNEE-JOINT: Tuberculosis, Anchylosis.

97·4:56·1
97·6:56·1
97·6:44·2
97·4:24·1

The knee-joint has been opened by a vertical antero-posterior section. The articular surfaces of the femur and tibia, and the joint cavity, are occupied by a mass of caseous debris which is especially plentiful posteriorly, where the tuberculous inflammation has also invaded the soft tissues. The upper limit of the tibia is seen as a sharp, irregular line of bone, and below this posteriorly are two moderately large centres of caseation. The patella is not seen. The skin over the joint shows several puckered scars due to old sinuses.

M.N. 579.

PATELLA AND ARTICULAR SURFACES OF TIBIA AND FIBULA: Tuberculosis. 97·4:56·1

On each of the articular surfaces tuberculous inflammation has occurred, and has given rise to very rough shreddy masses replacing the synovial membrane and cartilage. Where the cartilage is not covered by this new tissue, it shows areas of superficial erosion, most marked on the patella (seen best at the back of the specimen).

M.N. 580.

ANKLE-JOINT: Tuberculosis. 97·7:56·1
85:44

The specimen consists of the left ankle-joint, which has been opened anteriorly to expose the cavity of the joint. The articular surfaces are covered by very irregular tuberculous granulation tissue. This has replaced the cartilage on the upper surface of the astragalus, and there has been a similar, but more extensive, loss of tissue from the lower end of the tibia.

M.N. 581.

OS CALCIS; Tuberculosis, Sequestrum. 97·8:56·1
97·8:55·3
97·8:44·7
85:44

The articular surfaces show erosion of the cartilages, more or less extensive, and various other parts of the outer surface of the bone are roughened from tuberculous caries. On the lower aspect of the bone, there are two large cavities communicating with each other by a passage deep in the bony substance, and along the course of this passage there is a large sequestrum.

M.N. 582.

OS CALCIS: Tuberculosis. 97·8:56·1
85:44

The entire bone was excised.

M.N. 583.

ASTRAGALUS: Tuberculosis, Caries. 97·8:56·1
97·8:55·2

The articular surfaces are hardly affected; but the rest of the surface is roughened and hollowed out by tuberculous caries.

M.N. 584. Mr. G. Southam.

OS CALCIS: Tuberculosis, Caries. 97·8:56·1
97·8:55·2

There is caries present throughout the bone. The articular surfaces are fairly normal.

M.N. 588.

OS CALCIS (RIGHT): Caries, Formative Periostitis, Tuberculosis. 97·8:56·1
97·8:55.2
97·8:55·1

The bone presents on its outer surface a large carious cavity of 1 in. in length and 5 in. from above downwards. The epiphysis is only partially united to the bone. The outer surface is rough from osteophytes. The groove for the extensor longus pollicis is very rough.

M.N. 589.

ASTRAGALUS (LEFT): Caries, Tuberculosis. 97·8:56·1
97·8:55·2

The cartilage of the joint surfaces is partially destroyed, more particularly that on the surface for articulation with the tibia. Where the cartilage is missing the bone shows patches of caries.

M.N. 591.

KNEE-JOINT: Tuberculosis, Necrosis of Cartilage. 97·4:56·1
97·3:44·6
85:44

The specimen shows the patella, lower end of femur, and upper end of tibia, from a comparatively young subject. The cartilage, which has been extensively destroyed on all the bones, appears as elevated plateaux whose edges have been sharply cut by the erosion. On the femur the tuberculous inflammation has extended deeply into the bone. The ligaments and soft parts have been replaced by tuberculous granulation tissue.

M.N. 593.

OS INNOMINATUM (LEFT): Caries, Formative Periostitis, Tuberculosis. 97·1:56·1
97·1:55·1
97·1:55·2

The articular surface of the acetabulum presents two distinct small patches of caries. There are small deposits of new bone from the periosteum on the lower portion of the dorsum ilii, on the venter ilii, on the inner aspect of the acetabulum, on the anterior surface of the ramus of the ischium, and especially on the outer end of the ramus of the pubis.

M.N. 636.

FEMUR PATELLA, (RIGHT): Rarefying Ostitis, Anchylosis, Tubeculosis. 97·3:56·1
97·3:55·2
97·5:23·1

The bones are much lighter than normal. The upper section shows great widening of the medullary cavity and thinning of the compact tissue of the shaft. The inner condyle is rarefied and the articular surface is much roughened and excavated. The outer condyle shows subchondral caries. The patella is anchylosed to the inner and outer condyles in the position of flexion of the knee.

M.N. 641.

TIBIA, FIBULA (LEFT): Periostitis, Ostitis, Anchylosis, Syphilis. 97·6:56·3
97·6:24·1
97·6:55·1

The tibia presents a large subperiosteal node, $3\frac{3}{4}$ in. long, on the lower part of the internal surface and anterior border. A thick layer of new bone lies on the external surface of the tibia. The bone is, however, comparatively

light. The fibula is much thickened by deposit of new bone and is anchylosed for half its length to the tibia. On the external surface is a subperiosteal node, $3\frac{1}{4}$ in. long by 1 in. broad.

M.N. 905.

FEMUR: Tuberculosis. 97·3:56·1
97·4:56·1

The bone of the shaft immediately above the epiphyseal line shows a zone of caries, and the tissues surrounding the bone are very much thickened. On the outer aspect of the specimen, the openings of two sinuses can be made out. The synovial membrane of the joint is thickened, and rough, but the cartilage appears to be intact. The bone of the epiphysis has escaped also. The femur is that of a child.

M.N. 915. Mr. Heath.

FEMUR and KNEE-JOINT: Tuberculous Inflammation. 97·4:56·1
97·3:56·1
85:44

The knee-joint has been laid open. On the outer aspect of the external condyle of the femur a large opening is seen, which apparently communicates with a centre of tuberculous inflammation in the substance of the bone. The cartilages of the articular surface are extensively eroded and destroyed, that on the inner articular surface of the tibia being most affected. The synovial membrane of the joint is thick and rough. The swelling of the knee-joint was such as to suggest the diagnosis of tumour.

M.N. 2277. Mr. Stanmore Bishop.

FEMUR (UPPER PART): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

The cartilage has completely disappeared. The cancellous tissue of the head of the bone is extensively eroded, and a rough uneven surface has been exposed. There has also been a considerable amount of caries in the head of the great trochanter.

The patient had suffered for many years. There was a large number of sinuses round the joint.

M.N. 2621 to 2700.

SERIES OF SPECIMENS ILLUSTRATING TUBERCULOSIS OF THE HIP-JOINT IN CHILDHOOD.

The specimens in this collection were presented to the Museum by Mr. G. A. Wright. Full clinical details of each case may be found in Mr. Wright's "Hip Disease in Childhood."

M.N. 2621. Mr. Wright.

FEMUR, HEAD AND NECK: Slight Erosion of Cartilage. (Tuberculosis). 97·3:56·1 85:44

Case 44.

M.N. 2622. Mr. Wright.

FEMUR (LEFT) (UPPER END): Tuberculosis. 97·3:56·1 97·3:55·2 97·3:44·2 85:44

Cartilage: erosion. Epiphysis: rarefying ostitis, caseation (subchondral caries). Round ligament: infiltration, but no complete destruction.

Case 69.

M.N. 2623. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1 97·3:55·2 85:44

Cartilage: erosion, separation from bone. Epiphysis: rarefying ostitis. Subchondral caries.

Case 73.

M.N. 2624. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1 97·3:55·2 85:44

Cartilage: necrosis, erosion. Epiphysis: rarefying ostitis, caries. Partial absorption.

Case 1.

M.N. 2625. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, partial separation from epiphysis. Epiphysis: rarefying ostitis, subchondral caries.

Case 63.

M.N. 2626. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, extensive separation. Epiphysis: ostitis, caries. Shaft: ostitis.

Case 68.

M.N. 2627. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: erosion, necrosis, extensive separation. Epiphysis: rarefying ostitis, caries, caseation.

Case 41.

M.N. 2628. Mr. Wright.

LEFT FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, necrosis, extensive separation. Epiphysis: rarefying ostitis, caries.

Case 49.

M.N. 2629. Mr. Wright.

FEMUR (UPPER END); Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Cartilage: erosion, extensive separation. Epiphysis: rarefying ostitis, subchondral caries. Shaft: rarefying ostitis, caries, small cavity.

Case 27.

M.N. 2630. Mr. Wright.

FEMUR (LEFT) (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, partial necrosis. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.

Case 46.

M.N. 2631. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, necrosis. Epiphysis: rarefying ostitis, caries partial absorption. Shaft: rarefying ostitis.

Case 20.

M.N. 2632. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, complete in patches. Epiphysis: rarefying ostitis.

Case 87.

M.N. 2633. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion. Epiphysis: rarefying ostitis, partial absorption.

Case 72.

M.N. 2635. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: partial necrosis. Epiphysis: rarefying ostitis, subchondral caries. Shaft: rarefying ostitis.

Case 51.

M.N. 2636. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, slight separation. Epiphysis: rarefying ostitis. Shaft: rarefying ostitis.

Case 31.

M.N. 2637. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Cartilage: necrosis, entire separation. Epiphysis: rarefying ostitis, caseation, caries. Shaft: rarefying ostitis, caries, cavitation.

Case 84.

M.N. 2638. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
97·3:44·6
85:44

Cartilage: necrosis, extensive separation. Epiphysis: rarefying ostitis, necrosis. Shaft: rarefying ostitis, caseation of large area.

M.N. 2639. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, loose plates. Epiphysis: rarefying ostitis, caries.

Case 7.

M.N. 2640. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, entire separation. Epiphysis: rarefying ostitis caries, partial absorption. Shaft: rarefying ostitis.

Case 2.

M.N. 2641. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:55·1
97·3:55·2
85:44

Cartilage: total necrosis, large plates. Epiphysis: rarefying ostitis, caries, partial absorption. Shaft: rarefying ostitis.

Case 47.

M.N. 2642. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: large patch necrosed. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.

Case 86.

M.N. 2643. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Cartilage: necrosed, almost entire separation. Epiphysis: rarefying ostitis, caries. Shaft: necrosis, cavitation.

Case 4.

M.N. 2644. Mr. Wright.

FEMUR (ARTICULAR CARTILAGE): Tuberculosis. 97·3:56·1
85:44·7

Cartilage: necrosed.
Case 91.

M.N. 2645. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosed, almost total loss. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.
Case 59.

M.N. 2646. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, almost complete destruction. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.
Case 60.

M.N. 2647. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, extensive loss. Epiphysis: rarefying ostitis, caries. Shaft: caseous mass.
Case 85.

M.N. 2648. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, necrosis, almost complete loss. Epiphysis: rarefying ostitis, caries, partial absorption. Shaft: rarefying ostitis.
Case 45.

M.N. 2649. Mr. Wright.

FEMUR (RIGHT UPPER END): Tuberculosis. 97·3:56·1
„ (LEFT UPPER END) „ 97·3:55·2
85:44

Right cartilage: necrosis, entire destruction. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis. Left cartilage: necrosis. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.

Case 66.

M.N. 2650. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, total destruction. Epiphysis: rarefying ostitis, caries, partial absorption. Shaft: rarefying ostitis, caseating foci.

Case 38.

M.N. 2651. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, almost total destruction. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.

Case 70.

M.N. 2652. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, almost entire loss. Epiphysis: rarefying ostitis, extensive caries. Shaft: rarefying ostitis.

Case 64.

M.N. 2653. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, entire destruction. Epiphysis: rarefying ostitis, caries, caseation. Shaft: rarefying ostitis, caseation.

Case 33.

M.N. 2654. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, almost complete loss. Epiphysis: rarefying ostitis, caries, caseation, some absorption. Shaft: rarefying ostitis, slight caseation.

Case 30.

M.N. 2655. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, total destruction. Epiphysis: rarefying ostitis, caries.

Case 54.

M.N. 2656. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, entire destruction. Epiphysis, rarefying ostitis, caries. Shaft: rarefying ostitis, caseation.

Case 70.

M.N. 2657. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, entire loss. Epiphysis: rarefying ostitis, caries. Shaft: caseating mass in neck.

Case 71.

M.N. 2658. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, complete destruction. Epiphysis: rarefying ostitis, almost complete absorption. Shaft: caries.

Case 42.

M.N. 2659. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: disappearance. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis.

Case 94.

M.N. 2660. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: erosion, necrosis extensive. Epiphysis: rarefying ostitis, caries.

Case 75.

M.N. 2661. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, almost total loss. Epiphysis: rarefying ostitis, caries.
Case 36.

M.N. 2662. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, complete loss. Epiphysis: rarefying ostitis, caries, almost complete absorption.
Case 62.

M.N. 2663. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: necrosis, complete loss. Epiphysis: rarefying ostitis, caries almost complete absorption. Shaft: rarefying ostitis, caries.
Case 46.

M.N. 2664. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

Cartilage: necrosis, complete destruction. Epiphysis: rarefying ostitis, caseation, caries. Shaft: rarefying ostitis, caseation, caries.
Case 52.

M.N. 2665. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·2
97·3:55·2
97·3:44
85:44

Cartilage: necrosis. Epiphysis: rarefying ostitis, caries, almost complete absorption. Shaft: rarefying ostitis.

Case 14.

M.N. 2666. Mr. Wright.

FEMUR (R. UPPER END): Tuberculosis. 97·3:56·1
„ (L. UPPER END) „ 97·3:55·2
97·3:44·2
85:44

Right cartilage: necrosis, almost entire disappearance. Epiphysis: rarefying ostitis, caries, caseation. Left cartilage: necrosis, entire loss. Epiphysis: rarefying ostitis, marked caries.

Case 74.

M.N. 2667. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44
85:44

Shaft: rarefying ostitis, caries. Cartilage and epiphysis destroyed.

Case 67.

M.N. 2668. Mr. Wright.

FEMUR (UPPER END); Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Cartilage: necrosis, total loss. Epiphysis: rarefying ostitis, caries, partial absorption. Shaft: rarefying ostitis, caseation. Trochanter: ostitis.

Case 96.

M.N. 2669. Mr. Wright.

FEMUR (UPPER END); Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Cartilage: necrosis, almost entire destruction. Epiphysis: rarefying ostitis; caries, extensive loss. Shaft: rarefying ostitis, large cavity from necrosis.

Case 76.

M.N. 2670. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44
85:44

Cartilage: total destruction. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis, caries, necrosis.

M.N. 2671. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2
97·3:44·7
85:44

Cartilage: entirely destroyed; necrotic. Epiphysis: portions of cartilage and bone loose. Shaft: rarefying ostitis, caries, caseation, necrosis.

Case 91.

M.N. 2672. Mr. Wright.

FEMUR (UPPER END: Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44
85:44

Cartilage: necrosis, complete destruction. Epiphysis: necrosis, complete destruction. Shaft: rarefying ostitis, necrosis. Small sequestrum.

Case 32.

M.N. 2673.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·2

Cartilage: superficial erosion. Epiphysis: normal. Shaft: Caseous tuberculosis. Sequestra.

Case 50.

M.N. 2674. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7
85:44

Cartilage: Total loss. Epiphysis: rarefying ostitis, caries, necrosis, partial destruction. Shaft: rarefying ostitis, necrosis sequestrum.

Case 83.

M.N. 2675. Mr. Wright.

FEMUR (HEAD): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7

Epiphysis: ostitis, necrosis, large sequestrum. Shaft: sequestrum.

Case 37.

M.N. 2676. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7
97·3:44·6
85:44

Cartilage: erosion, separation from epiphysis. Epiphysis: rarefying ostitis, sub-chondral caries, caseation, partial absorption. Shaft: rarefying ostitis, caries, necrosis, large vomica.

Case 89.

M.N. 2677. Mr. Wright.

OS INNOMINATUM: Tuberculosis. 97·1:56·1
97·1:54·4
97·1:44

Ilium completely detached from the pubis and ischium. Extensive superficial necrosis.

Case 11.

M.N. 2678. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Epiphysis: necrosis, sequestrum loose. Shaft: rarefying ostitis. Caseation very marked.

Case 92.

M.N. 2679. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44
85:44

Cartilage: erosion. Epiphysis: rarefying ostitis, necrosis, caries. Shaft: rarefying ostitis, necrosis, caries.

Case 82.

M.N. 2680. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7
85:44

Cartilage: total destruction. Epiphysis: rarefying ostitis, caries, necrosis, sequestra. Shaft: rarefying ostitis.

M.N. 2681. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: complete destruction. Epiphysis: rarefying ostitis, caries, extensive absorption. Shaft: rarefying ostitis, caries.

Case 40.

M.N. 2682. Mr. Wright.

FEMUR (EPIPHYSIS of HEAD): Tuberculosis. 97·3:56·1
97·3:44·7

Necrosis: sequestrum of the whole epiphysis.

Case 13.

M.N. 2683. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7

Epiphysis: necrosis of whole epiphysis. Shaft: rarefying ostitis, caries.

Case 12.

M.N. 2684. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: total destruction. Epiphysis: rarefying ostitis, caries.

Case 11.

M.N. 2685. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:44·7
85:44

Cartilage: entire destruction. Epiphysis: destroyed, epiphyseal cartilage necrotic. Shaft: necrosis, sequestrum.

Appendix II., Case 5.

M.N. 2686. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:56·2
85:44

Cartilage: total destruction. Epiphysis: rarefying ostitis, caries.
Case 3.

M.N. 2687. Mr. Wright.

FEMUR (UPPER THIRD of SHAFT): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·6
85:44

Epiphysis: destroyed. Shaft: rarefying ostitis, caries, necrosis.
Appendix II., Case 19.

M.N. 2689. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: total destruction. Epiphysis: rarefying ostitis, almost totally destroyed. Shaft: rarefying ostitis, caries.

M.N. 2690. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
85:44

Cartilage: total destruction. Epiphysis: rarefying ostitis, caries. Shaft: rarefying ostitis, necrosis, sequestra.
Case 58.

M.N. 2691. Mr. Wright.

FEMUR (UPPER END): Tuberculosis. 97·3:56·1
97·3:55·2
97·3:44·7
85:44

Cartilage and epiphysis: destroyed. Shaft: rarefying ostitis, caries.
Case 9.

M.N. 2692. Mr. Wright.

FEMUR (UPPER END) : Tuberculosis. 97 · 3 : 56 · 1
97 · 3 : 55 · 2
97 · 3 : 44
85 : 44

Cartilage and epiphysis: entirely destroyed. Shaft: rarefying ostitis, caries.

Case 16.

M.N. 2693. Mr. Wright.

FEMUR (HEAD): Tuberculosis. 97 · 3 : 56 · 1
97 · 3 : 44 · 7
85 : 44

Cartilage: Necrosis. Epiphysis: Necrosis.

M.N. 2694. Mr. Wright.

FEMUR: Tuberculosis. 97 · 3 : 56 · 1
97 · 3 : 55 · 2
97 · 3 : 21 · 3

Upper end of specimen: rarefying ostitis, caries. Lower end of specimen: ununited fracture. Small amount of callus.

Case 17.

M.N. 2695. Mr. Wright.

FEMUR (SHAFT): Tuberculosis. 97 · 3 : 56 · 1
97 · 3 : 54 · 5
97 · 3 : 55 · 1

Chronic osteo-myelitis. Formative periostitis.

M.N. 2700. Mr. Wright.

FEMUR (HEAD); Tuberculosis. 97 · 3 : 56 · 1
97 · 3 : 55 · 2
85 : 44

Cartilage: complete necrosis. Epiphysis: complete necrosis. Shaft: rarefaction.

Apendix I., Case 37.

M.N. 2920. Mr. WRIGHT.

FEMUR: Tuberculous Arthritis. 97·3:56·1
97·3:55·2
85:44

The presence of tuberculous disease is seen in:—(1) Necrosis and almost total destruction of the articular cartilage. (2) Caries of the epiphysis. (3) Rarefying ostitis of the shaft. The soft tissues round the joint are thickened with tuberculous exudation.

M.N. 2984. Mr. WRIGHT.

TARSUS: Tuberculosis. 97·8:56·1

The scaphoid bone was removed by operation. In the middle of the anterior articular surface softening and erosion of the cartilage has taken place, leaving an area of rough tissue somewhat less than a threepenny-piece in size. The edge of the cartilage around this is here and there somewhat undermined.

M.N. 3064. Mr. WRIGHT.

FEMUR: Tuberculous Arthritis. 97·3:56·1
97·3:55·2
97·3:44·2
85:44

The patient was a boy aged 15 years. He had suffered from hip-disease for nine months. The hip joint was excised Oct., 1903. The acetabulum was perforated postero-superiorly, and a sequestrum was present.

M.N. 3134. Mr. SOUTHAM.

KNEE-JOINT: Tuberculous Arthritis. 97·4:56·1

The lower articular surface of the femur has been almost completely disorganised. The cartilage and a considerable portion of the bone have been destroyed and their place has been taken by a thick, shaggy, caseous layer of tuberculous granulation tissue.

The patient was a boy aged 10 years. The knee-joint was excised June 10, 1902.

M.N. 3135. Mr. Wright.

ANKLE: Tuberculous Arthritis. 97·7:56·1

The specimen consists of the astragalus sawn in two. The external articular surface of the astragalus displays tuberculous ulceration at the junction of cartilage and synovial membrane, and the adjacent cartilage is thinned. The remaining articular surfaces are yellow and rough. The cut surface shows at the junction of the head with the neck a caseous nodule. The soft structures at the articular margin are swollen from tuberculous infiltration.

The patient was a girl, aged 14 years. Operation, July 2, 1902: removal of the astragalus and erosion of the ankle-joint.

M.N. 3197. D.B. 4558. Mr. Wright.

FEMUR: Tuberculosis. 97·3:56·1

The specimen is the head and neck and upper part of the shaft of the left femur. Tuberculous inflammation has caused complete destruction of the head and a very irregular osseous growth round the neck, the surface of which shows cavitation and necrosis of the bone. In the region of the digital fossa, there is extensive osteoporosis.

The patient was a man, aged 25 years, who had suffered from tuberculous disease of the hip-joint for two years. The region of the hip was riddled with septic sinuses. Amputation at the joint was performed Jan. 30, 1903.

M.N. 3239. D.B. 4452. Mr. Burgess.

KNEE-JOINT: Tuberculosis. 97·4:56·1

The knee-joint has been laid open, and the patella has been removed. The synovial tissue round the margin of the articular surface is very much thickened from œdematous infiltration. The articular surface shows roughened and discoloured cartilage, that of the external tuberosity of the tibia being extensively ulcerated, and on the floor caries of the bone has commenced.

The articular surfaces have been encroached upon by the inflamed and thickened synovial membrane.

The patient was a man, aged 61 years. The knee had been diseased for ten years, and several septic sinuses had formed. It was quite stiff and was flexed to an angle of 75 degrees. The thigh was amputated Jan. 21, 1904.

M.N. 3769. D.B. 4828. Feb. 9, 1906. Mr. J. W. Smith.

KNEE-JOINT: Tuberculosis. 97·4:56·1

The knee-joint has been laid open and shows a synovial membrane thick and rough and discoloured from hæmorrhage. The articular cartilages are invaded by granulations which are hæmorrhagic in type. Otherwise the cartilage is thin and easily separated from the bone, while in some places it has a dark necrotic appearance. Over the patella it has, to a large extent, been destroyed.

The patient was a man, aged 48 years. He had suffered from tuberculous disease of the knee-joint for twelve months. Excision of the joint was performed in January, 1906, but the pain became so severe that the thigh was amputated on Feb. 6.

BONES OF THE LOWER EXTREMITY: HYPERTROPHY.

M.N. 440. Mr. Turner.

FEMUR (RIGHT): Hypertrophy. 97 · 3 : 62

The bone is of larger size and weight than normal, and the external markings are well developed.

BONES AND JOINTS OF THE LOWER EXTREMITY: BENIGN TUMOURS.

M.N. 638.

FEMUR, PATELLA, TIBIA (RIGHT): Osteoma Anchylosis. 97·4:63·4

The specimen includes the inner half of a sagittal section of the lower end of the femur, the patella and the upper end of the tibia. The lower end of the femur is much enlarged, especially the internal condyle which forms a rounded prominence of bone extending over the inner side of the head of the tibia to below the groove for the semi-membranosus. The knee-joint is completely anchylosed in the position of flexion. The patella is anchylosed to the femur.

M.N. 711. Mr. Southam.

SPONGY EXOSTOSIS from the Head of the Tibia (Inner Tuberosity). From a boy aged 14. 97·6:63·4

M.N. 714.

FEMUR (RIGHT): Exostosis. 97·3:63·4

The internal border at its lower end is continued in an elongated, smooth prominence, about 6 c.m. long, which terminates immediately above the lower articular surface. The summit of the prominence has been chipped off.

M.N. 715.

FEMUR (LEFT): Exostosis. 97·3:63·4

Attached to the middle third of the internal surface of the shaft is a mass of bone 15 c.m. long. The lower portion overlaps part of the internal and anterior aspects, and the tumour has a smooth, posterior surface, but the internal and anterior surfaces are broken by wide deep grooves and pits. The exostosis is very dense.

M.N. 716.

FEMUR (LEFT): Exostosis. 97·3:63·4

The bone is heavier than normal. The lower portion of the linea aspera is continued into a ridge of bone running towards the external condyle.

M.N. 717.

FEMUR (RIGHT): Exostosis. 97·3:63·4

Attached to the outer aspect of the middle of the shaft is a curved plate of bone which overhangs the anterior surface for an area about equal to that of its attachment. It is about 8 c.m. in its greatest length. On the internal condyle is a similar but smaller exostosis.

M.N. 718.

TIBIA (RIGHT): Exostosis. 97·6:63·4

On the upper part of the posterior surface is an irregular plate of bone, presenting at its upper and lower borders prominent ridges and processes.

M.N. 721F. Prof. YOUNG.

FEMUR (R. & L.): Exostosis. 97·3:63·4

The upper and lower ends of the bones are greatly enlarged, and deformed by masses of outgrowth of various sizes and shapes; these are for the most part rounded at the lower end, and irregular at the upper. On the left bone the outgrowths extend down the posterior aspect of the shaft for a short distance. (See scapula M.N. 721A—96·2:63·4, also M.N. 721G, below.)

M.N. 721G. Prof. YOUNG.

TIBIA, FIBULA (R. & L.): Exostosis, Anchylosis. 97·6:63·4
97·6:24·1

The normal curvature of the upper end of the tibia is exaggerated somewhat on both sides. Both the upper and lower ends of the tibiæ and fibulæ are deformed by outgrowths of irregular shapes and sizes. The upper ends of the fibulæ are greatly enlarged and are anchylosed to the tibiæ. The lower tibio-fibular articulations are also completely anchylosed. (See M.N. 721F, above.)

M.N. 724. Mr. SOUTHAM.

TOE: Subungual Exostosis. 97·8:63·4

The specimens form a collection of exostoses growing in each case on the terminal phalanx of a big toe.

M.N. 859. Mr. HEATH.

FEMUR: Osteo-Chondroma. 97·3:63·3 (63·4)
97·3:21

There was a history of 4 years' growth; but the patient stated that the limb had always been weak. The femur (left) was fractured by a fall a week before admission. Amputation at the thigh was performed, and recovery was uneventful. Prof. A. H. Young examined the limb and reported as follows:— The new growth which originated in the deeper layers of the periosteum was limited to the upper part of the shaft of the femur. It extended from the great trochanter above, to a distance of 5 inches below this, and concealed almost two-thirds of the circumference of the bone, including its anterior and lateral aspects. The tumour formed a large globular mass, which measured $6\frac{1}{2}$ in. vertically, 6 in. transversely, and $4\frac{1}{2}$ in. in its antero-posterior diameters. The surface was irregularly nodular, and covered with a dense fibrous investment. On section the substance was found to consist of rounded, cartilaginous nodules, separated by a small amount of fibrous tissue continuous with this fibrous capsule. In many parts calcareous deposits existed.

Microscopically the cartilaginous nodules showed round and ovoid cells in a hyaline matrix. The shaft of the femur was not implicated in the new growth. The anterior part of the shaft in the region of the tumour was slightly thinner than elsewhere, and probably the situation of the fracture of the femur was determined by this condition. The fracture is an oblique one.—*Lancet*, 1882, vol. i., p. 734.

M.N. 895. D.B. 368. July 19, 1886. Dr. Dreschfeld.

FEMUR: Periosteal Fibroma. 97 · 3 (87) : 63 · 2 (42 · 6)

At the lower end of the right femur on the anterior aspect there is a flat, rounded, irregular tumour, of considerable size. The outer layer of the tumour is tough and fibrous, while the centre has been excavated by myxomatous softening. The section, taken from the harder part of the tissue, shows on examination the structure of a hard fibroma.

M.N. 896. Mr. Heath.

FIBULA: Osteo-Chondroma. 97 · 6 : 63 · 3 (: 63 · 4)

An irregular mass of tumour surrounds the shaft of the fibula, and is composed of hard tissue. The upper part of the specimen shows a superficial layer of compact osseous tissue with a smooth surface, and below this, the growth is very irregular and nodular. The section shows the tumour springing from the surface of the bone, the shaft of which can still be seen traversing the entire length of the tumour. The structure is that of hyaline cartilage in process of ossification.

M.N. 2907. D.B. 3670. Feb. 24, 1898. Mr. Jones.

LIPOMA of the FIFTH METATARSAL BONE. 97 · 8 : 63 · 1

This large, flat, lobulated lipoma grew from the dorsal surface of the 5th metatarsal bone and extended over the dorsum of the foot.

M.N. 3058. June 29, 1904. Mr. Ray.

PATELLA: Chondroma. 97 · 5 : 63 · 3

The specimen shows a rounded, somewhat flat, mass in the shape of a semicircular disc. The greater part of the surface is smooth and covered with a serous membrane, but in form it is irregular because the growth has occurred in a multitude of small rounded nodules. The tissue has the steel-

grey appearance of hyaline cartilage. The surface of the section shows the internal structure of cancellous bone and cartilage.

The patient was a boy, aged 9 years. The condition followed some months after a kick on the knee. The joint was opened June 29, 1904. There was a considerable amount of fluid in the joint. The growth was removed from the upper and outer part of the patella. Recovery was uneventful.

M.N. 3107. Mr. Wright.

FEMUR AND TIBIA: Osteoma Spongiosum. 97·3:63·4
97·6:63·4

The specimen consists of two spongy exostoses. The cartilage-covered surfaces are bluish in colour, semi-translucent, and irregular. The bases are constricted and their sections show the structure of cancellous bone.

The patient was a girl, aged 16 years. The tumours had been noticed for fifteen months. Six exostoses were present, growing from the epiphyseal lines of the femur, tibiæ and radius. The specimens were removed from the region of the knee. The movements of that joint were interfered with; but no other symptoms were present. There was no history of rickets.

M.N. 3227. D.B. 4405. April 29, 1903. Mr. Wright.

ILIUM: Chondroma. 97·1:63·3

The chondroma was removed from the iliac crest. The outer surface shows marked nodulation, the nodules consisting of hyaline cartilage are separated from each other by a small amount of fibrous matrix. On the cut surface it is seen that the whole mass consists of the same tissue and is of a typical semi-translucent and homogeneous appearance.

The patient was a man, aged 34 years, who had noticed the tumour growing from the crest of the ilium on the right side for twelve months. It had given rise to no symptoms. The tumour was removed April 29, 1903.

M.N. 3452.

FEMUR: Fibro-Chondroma. 97·3:63·2 (63·3)

A large, fibro-chondroma, occupies the head of the bone. It is lobular in character, and has replaced the upper end of the bone. On section it is seen to have three structural parts. One is a large cyst, apparently the site of degenerative softening. The central part shows the typical structure of a fibroma; while a lobule at the side is largely composed of hyaline cartilage.

On microscopic section the fibromatous part is seen to be very cellular in character. The cartilaginous lobule shows typical hyaline cartilage, occurring in masses surrounded by fibromatous tissue, while here and there the cartilage is becoming calcified.

M.N. 3534. Mr. Wright.

ILIUM: Recurrent Chondroma. 97·1:63·3

The specimen consists of a large, rounded tumour, the size of a cocoanut. It is encapsuled, and on the cut surface it is seen to be composed of rounded lobules of hyaline cartilage separated from each other by a very small amount of fibrous tissue. At one point calcification of the cartilage has occurred, and at another some distance from this, myxomatous softening.

Microscopically, the tissue shows the structure of hyaline cartilage. The stroma is chiefly fibrous, but here and there are a few areas of cellular infiltration.

The patient was a man aged 36 years. On April 29th, 1903, a chondroma springing from the ilium had been removed. Recurrence was first noticed Jan., 1904. The tumour was removed by operation, July 28, 1905.

M.N. 3547. D.B. 4668. July 27, 1905. Mr. Collier.

FOOT: Chondroma. 97·8:63·3

The specimen consists of a longitudinal section of a foot. Nodules of hyaline cartilage spring from the os calcis, and between the os calcis and astragalus. Several of them are surrounded by a zone of marked congestion.

The tumour can also be seen projecting from the inner surface of the os calcis beneath the internal malleolus, where it presents a lobulated surface.

The patient was a man aged 29 years. Two years previously a chondroma, springing from the left os calcis, had been removed. About twelve months later, the tumour began to grow again. On July 26th, 1905, the leg was amputated at the junction of the middle and lower thirds.

M.N. 3563. D.B. 3916.

FEMUR : Fibro-Chondroma. 97 · 3 : 63 · 2 (63 · 3)

The epiphyseal line of the femur is still distinct. The posterior surface is the seat of a somewhat flattened discoid tumour, which springs from the bone, and has caused considerable destruction of the compact part of the shaft. The tumour is composed of islands of cartilage in a fibrous matrix. Near the lower end of the tumour there is an irregular area of myxomatous softening, which has formed a cyst-like space.

Microscopically, the tumour consists of islands of cartilage separated by strands of cellular fibrous stroma.

BONES AND JOINTS OF THE LOWER EXTREMITY: MALIGNANT TUMOURS.

M.N. 464.

FEMUR (LEFT): Osteo-Sarcoma. 97·3:65·4

The lower half of the shaft is rarefied and the original compact surface is somewhat destroyed. There are several spongy excrescences of irregular shapes on the affected area; those lying on the inner aspect are much the largest.

M.N. 891.

FEMUR: Periosteal Sarcoma. 97·3(87):65·2

The upper part of the shaft shows the presence of a large rounded tumour which has formed a more or less complete envelope to the bone. It has invaded the osseous tissue and led to spontaneous fracture. The tumour tissue presents a friable, uniformly cellular appearance with some areas of discoloration from hæmorrhage. The osseous tissue of the shaft adjacent to the tumour is thickened and loose in texture, suggesting the existence of ostitis prior to the onset of tumour. The angle formed between the neck and the shaft is almost a right angle.

Microscopically, the tumour has the structure of a large spindle-celled sarcoma, but the cells are very irregular in type.

M.N. 892.

FEMUR (RIGHT): Central Sarcoma. 97·3:65·4

The head, neck, trochanter and the upper part of the shaft are expanded and thinned. The walls of the cavity are very thin and porous.

M.N. 893.

FEMUR: Sarcoma. 97·3:65·1

The specimen shows the head, neck, and upper part of the shaft of the femur. Fracture of the neck has occurred as the result of a tumour growth in this site. There has been extensive destruction of tissue, and in the surrounding bone cavities have formed which show a comparatively smooth wall.

Microscopic section of a piece of this wall after decalcification reveals a tissue which is apparently that of a round-celled sarcoma, but the histological details can scarcely be made out.

M.N. 897. D.B. 1860. Dr. F. Wright.

FEMUR: Periosteal Sarcoma. 97·3(87):65·2

The lower end of the right femur is seen to be enveloped in a mass of sarcomatous growth. The area of tumour growth centres about the epiphyseal line and shows peripheral and central portions. The peripheral portion of the tumour is composed of soft tissue, and extends as far as the articular surface of the bone, where it has partially replaced the cancellous tissue.

On microscopic examination the tissue is that of a spindle-celled sarcoma with strand-like areas of ossification.

M.N. 898B. Mr. Jones.

FEMUR: Periosteal Sarcoma. 97·3(87):65

The sarcoma has grown from the anterior and outer aspects of the lower end of the right femur. The bone and the tumour have been divided somewhat obliquely, and on the cut surface it is seen (1) that the tumour is composed of a comparatively soft, cellular mass; (2) that the compact bone at its base is somewhat eroded; (3) that on the surface of the bone, at its margin, a layer of new bone has been laid down from the periosteum; (4) that the growth has invaded the shaft, causing sclerosis of the bone and extension of the tumour in the medullary cavity for a considerable distance. The epiphyseal line is well defined and forms the lower limit of the growth.

M.N. 899. D.B. 1340. May, 1888. Mr. Jones.

FEMUR: Chondro-Sarcoma. 97·3:65·2(63·3)(42·6)

The specimen consists in the lower half of the femur. It is surrounded by a large tumour mass of a soft uniform texture, showing little discoloration or softening except towards the upper part, where there is a large irregular cavity with a smooth lining due apparently to myxomatous softening.

On microscopic examination the tissue is cellular, and the cells are predominantly of the large spindle form, but they show great variety of structure, some containing a group of nuclei which are massed together, and are of very different sizes. Parts of the tissue are cartilaginous in structure.

M.N. 901A. & B.

FEMUR: Osteo-Sarcoma. 97·3(87):65

Springing from the posterior, and partly from the lateral, aspects of the lower end of the bone, is a large lobulated bony mass. The new growth has destroyed and replaced almost the whole of the lower fourth of the bone. The external condyle and its articular surface have been destroyed. The shaft for some distance above the growth is infiltrated. The spicules are arranged in whorls.

M.N. 903A. D.B. 904. May, 1886. Mr. Jones.

FEMUR: Periosteal Sarcoma. 97·3(87):65
97·3:21

The shaft immediately above the epiphysis is partly replaced by, and partly embedded in, the tumour growth. As a result of the growth spontaneous fracture has occurred, and the form of the bone has been completely lost in the subsequent disorganization.

M.N. 904.

FEMUR: Periosteal Sarcoma. 97·3(87):65·3

This specimen is the bisected lower end of the femur of a young subject. The bone is embedded in a large rounded mass of tumour growth composed of fibrous and cellular tissues. The outline of the original bone can still be traced; but with the growth of the tumour, which has been partly an invasion of the osseous tissue, there has been a considerable amount of condensation of the bone in the neighbourhood. The epiphyseal portion is very slightly affected.

M.N. 906. Mr. A. Boutflower.

FEMUR: Myeloid Sarcoma. 97·3:65·4

The vertical mesial section is through the lower end of the femur, where the bone has been expanded by the growth of an endosteal sarcoma affecting both the diaphysis and the epiphysis. There is a thin but complete shell of bone on the outer surface. The articular cartilage is intact.

M.N. 907.

FEMUR: Osteo-Sarcoma. 97·3:65
87:65

The lower third of the shaft of the femur is surrounded by a mass of spongy bone, which is thickest posteriorly. The spicules of the tumour are, as a rule, perpendicular to the surface from which they spring.

M.N. 908. Mr. Lillemand.

FEMUR: Osteo-Sarcoma. 97·3:65

The original bone is rarefied and partially absorbed at the lower end. Springing from the internal condyle is a large mass of spongy bone, about 10 c.m. in diameter. Other smaller excrescences are found on the anterior and posterior aspects of the lower end of the shaft, and in the inter-condylar notch. Still smaller excrescences spring from the lower third of the shaft.

M.N. 910. Mr. Jones.

FEMUR: Periosteal Sarcoma. 97·3(87):65

The lower end of the bone is surrounded by a massive tumour growth, which shows on the cut surface a uniform cellular texture with islands of bone scattered through the substance. The shaft of the bone in the centre of the tumour has been attacked, and the compact bone has been gradually replaced by tumour tissue; but some irregular areas of compact bone still remain here. The whole cavity of the bone for some distance up the shaft is filled with tumour growth. The shaft is atrophied, but there is no tendency to expansion of the bone in this tumour.

M.N. 911. Mr. Lillemand.

FEMUR: Osteo-Sarcoma. 97·3:65

About half the bone is surrounded by an enormous mass of spongy, friable bone about 18 c.m. long and 14 c.m. in transverse diameter. The surface is rough and uneven. The articular end is rarefied and partly destroyed and infiltrated with new growth. The broken end of the shaft reveals rarefaction of the compact tissue.

M.N. 912. D.B. 344. July 20, 1886. Dr. Dreschfeld.

FEMUR: Secondary Carcinoma. 97·3:66·4

The specimen shows in the lower end of the femur a rounded, well-defined, opaque mass of homogeneous tumour growth, which has completely replaced the bone, but has not invaded the articular cartilage.

On microscopic examination it shows a fibrous matrix, in which are found areas of columnar epithelium, and the spaces of the alveoli are irregularly filled up by desquamated cells.

M.N. 913A. D.B. 1334. Mr. Jones.

FEMUR: Central Sarcoma. 97·3:65·1

The lower end of the femur is the seat of an expanding sarcoma, which has formed a large rounded, but definitely limited, growth. The tissue of the tumour is soft and friable, and free from osseous structure.

Microscopically, the sarcoma is of the round-celled variety.

M.N. 914. Mr. Jones.

FEMUR: Sarcoma. 97·3:65·4

The end of the femur is greatly expanded by the growth of an endosteal sarcoma. The tumour is a large friable mass, breaking down in places, and showing areas of hæmorrhage. It is a myeloid sarcoma.

M.N. 916. D.B. 1934. Feb. 28, 1893. Mr. Southam.

FEMUR: Cystic Sarcoma (Myeloid). 97·3:65·4

In the lower half of the femur the epiphysis has been the site of a cystic sarcoma, which has caused great expansion of the bone, and formed a well-defined rounded mass. The mass is hollowed out into smooth-walled loculi.

The microscopic examination shows that the tumour is a myeloid sarcoma of a very vascular type, and with relatively few giant cells.

M.N. 917.

TIBIA: Myeloid Sarcoma. 97·6:65·4

The specimen includes the lower part of the femur, the knee-joint, and the head of the tibia. In the region of the knee-joint is a large growth, which has completely destroyed the structures there. It has apparently sprung from the head of the tibia. It has extended also into the epiphysis of the femur. The growth consists essentially of soft, friable tissue, and shows many areas of hæmorrhage, and a number of cystic spaces due to softening.

Microscopically the tissue exhibits predominantly a spindle-celled sarcomatous structure, but there are also a few giant cells sparsely scattered through it.

M.N. 919. D.B. 860. Mr. Jones.

TIBIA and FIBULA: Small Round-Celled Sarcoma. 97·6:65·1

The lower part of the leg has been dissected to expose a large sarcomatous tumour springing from the fibula. The bone has been almost completely destroyed. At the upper part of the specimen are seen the remains of the fibula, as a tubular piece of sequestrum.

Microscopic examination of the tissue shows that the tumour is a small round-celled sarcoma, the round cells being arranged as small groups in the spaces of a fibrous matrix.

M.N. 920.

TIBIA: Sarcoma. 97 6:65·1

The specimen is one-half of the knee-joint. The upper part of the shaft of the tibia is the seat of a large tumour which has been very much softened in the centre, where there now is left only a felted mass of tissue. The outer border of the tumour has the appearance of sarcomatous tissue. The tumour has almost completely replaced the head and upper part of the shaft of the tibia, and it has filled up the cavity of the knee-joint.

Microscopic examination of the growing edge shows that it is a round-celled sarcoma, the masses of cells showing a roughly alveolar arrangement in a very loose matrix.

M.N. 921.

TIBIA: Myeloid Sarcoma. 97·6:65·4

The inner aspect of the head of the tibia is the seat of a large fleshy tumour which is surrounded by a well-defined capsule, and which is composed of a group of rounded lobules or processes with a smooth surface and friable texture. The tumour has caused marked thickening of the crucial ligaments, but the articular surface of the femur is still intact.

Microscopic examination shows that the tumour is of the myeloid variety.

M.N. 923. Mr. Jones.

TIBIA: Endosteal Sarcoma. 97·6:65·4

The upper part of the tibia is greatly expanded by the growth of a myeloid sarcoma. The tissue is uniform, compact, and of friable appearance. A thin shell of bone remains on the outer surface. The articular cartilages are intact. The growth has commenced in the head of the bone, and has extended down into the shaft for a short distance beyond the area of expansion.

M.N. 923B. Mr. Jones.

FEMUR and TIBIA: Osteo-Sarcoma. 97·3:65
97·6:65

The inner half of the lower end of a femur and the upper fourth of a tibia have been bisected sagittally. The femur is surrounded by an enormous mass of spongy bone, which is very friable and has an irregular surface. The antero-posterior diameter is about 18 c.m., and is greater than the lateral. The original bone is rarefied, and partially absorbed, and is infiltrated with new growth. The tibia is much rarefied, and presents an area of infiltration. It is dislocated backwards.

M.N. 924. Mr. Jones.

TIBIA: Periosteal Sarcoma. 97·6(87):65

The shaft of the bone, immediately beneath the epiphyseal line, is very condensed, and about $\frac{1}{3}$ of an inch below this, destruction of bone from the periosteal sarcoma is seen. The bone which remains is embedded in a comparatively soft, spongy-looking mass of tumour growth. The surface of the compact bone has been extensively eroded, and transverse fracture has occurred.

M.N. 926. Mr. Jones.

TIBIA: Myeloid Sarcoma. 97·6(86):65·4

The head of the tibia, and upper portion of the shaft, have been expanded by the growth of a myeloid sarcoma. On the cut surface the tumour is seen as a soft, friable mass of uniform texture, and of an opaque, fleshy appearance. It has eroded and expanded the bone, and is now surrounded by a thin, shell-like capsule of bone. The articular surface and the periosteum remain intact.

M.N. 927.

TIBIA: Periosteal Sarcoma. 97·6(86):65

The upper portion of the tibia has been bisected. Part of the shaft beneath the epiphyseal line is markedly sclerosed and shows a very irregular surface. It is surrounded by a large fleshy mass of periosteal sarcoma. The articular surface is intact.

M.N. 928.

TIBIA: Central Sarcoma. 97·6(86):65·4

The tibia is surrounded by muscles and other soft tissues. Near the lower end a part of the bone has been removed to show the presence of a central myeloid sarcoma, which has filled up, and expanded the medullary cavity of the bone. The tumour tissue is seen to be of a soft, friable nature, and the outer limit of the growth is a thin shell of the original bone. There has been no extension of the growth to the periosteum.

M.N. 929.

TIBIA and FIBULA (LEFT): Osteo-Sarcoma. 97·6:65

Springing from the middle third of the external surface of the tibia is a fusiform mass of bone which has a comparatively smooth surface, except externally, where the tumour is hollowed. The greater part of the shaft of the tibia has a rough surface, from osteoporosis, and here and there small irregular excrescences of bone appear. The fibula presents a curvature convex outwards, most marked in the upper two-thirds. A large part of its surface is rough from deposit of new bone.

M.N. 930.

TIBIA and FIBULA: Osteo-Sarcoma. 97 · 6 : 65

Arising from the upper end of the internal and posterior surface of the tibia is a large excrescence of very friable bone. The original bone of the upper end of the shaft is rarefied, and partly absorbed, round its whole circumference. On the internal surface below the tumour is a deposit of new bone, and on the external and posterior surface for some distance down the shaft rarefaction and exfoliation of the superficial layer have occurred. The upper third of the fibula is much rarefied and the superficial layer is undergoing exfoliation.

M.N. 931.

FIBULA: Round-celled Sarcoma. 97 · 6 (87) : 65 · 1

The specimen is a transverse section of the leg. A periosteal sarcoma has formed round the fibula, and is seen as an encircling fleshy mass of tissue completely surrounding the bone. The outline of the cross section of the bone is partly lost from the invasion of the surface of the bone by the tumour.

M.N. 933. Dr. Cullingworth.

TIBIA: Myeloid Sarcoma. 97 · 6 (86) : 65 · 4

The ankle-joint has been laid open, and from the line of section there has protruded a soft friable mass of tumour, arising from a myeloid sarcoma growing in the lower end of the tibia.

M.N. 934. Mr. Heath.

TIBIA: Spindle-celled Sarcoma. 97 · 6 (87) : 65 · 2

A rounded tumour is seen growing from the periosteum of the tibia near the lower end. The section of the tumour mass has a characteristic fasciculated appearance.

The microscopic examination shows that the structure is a spindle-celled sarcoma.

M.N. 937. Mr. Jordan.

TIBIA AND FIBULA: Periosteal Sarcoma. 97·6(87):65·2

The specimen consists in the lower half of the tibia and fibula. A large, flat, rounded tumour is situated on the posterior surface of the tibia, spreading to the anterior aspect by passing through the interosseous membrane, and partially enveloping the fibula.

Microscopic examination shows that it is a spindle-celled sarcoma. Some of the spindle cells are very large with rounded fusiform nuclei.

M.N. 939. Mr. Turner.

FIBULA, TIBIA (LEFT): Central Sarcoma. 97·6:65·4

About the middle of the shaft of the fibula is a large ovoid, hollow tumour, 9 c.m. long, the walls of which are thin, but formed of fairly dense bone. The lower part of the outer wall is deficient, and there are several smaller deficiencies. The shaft of the fibula is partly absorbed opposite the swelling, but is thickened for a short distance above and below.

M.N. 947.

TIBIA (LEFT): Central Sarcoma. 97·6:65·4

In the lower half of the tibia, for a length of about $4\frac{1}{2}$ in., the shaft has been expanded, and in great part destroyed by a new growth. The shell is perforated and rough, and consists of spongy bone. Immediately above the deficiency, the shaft is thickened for a short distance.

M.N. 2908. D.B. 2978. Jan. 8, 1895. Mr. Jones.

FEMUR: Periosteal Sarcoma. 97·3(87):65

The specimen is a section of the lower half of the femur and the upper half of the tibia, surrounded by soft tissues. Around the epiphysis of the femur a periosteal sarcoma has grown in the form of a massive, rounded, fleshy envelope to the bone, forming a large tumour. The growth has also invaded the bone, leading to a destruction of the compact bone at the site of origin, and infiltrating the cancellous bone of the epiphysis. The tumour tissue is of a soft, friable nature, and the growth of the tumour has rendered the bone very liable to fracture. The tibia is unaffected.

M.N. 2996. Mr. Wright.

TIBIA: Endosteal Sarcoma. 97·6:65·4
97·4:54·4

The head of the tibia has been the site of an expanding central sarcoma, which has largely replaced the bony tissue. The substance of the tumour has been to a large extent removed, and the remains which form the wall of the cavity are discoloured by hæmorrhage. The articular surface of the knee-joint is very much roughened by inflammatory change, and there is also the opening of a sinus in the skin which is attached to this part of the specimen. The patient has apparently suffered from suppurative arthritis.

The patient was a man, aged 31 years. There was a history of slight injury 12 months previously. The enlargement of the tibia has been noticed 5 months, and had caused considerable pain, especially at night. There was slight pulsation over the tumour. The leg was amputated through the middle of the thigh. Recovery was uneventful.

M.N. 3098. Mr. Wright.

TIBIA: Periosteal Sarcoma. 97·6:65

The specimen is from an amputated leg. A transverse section has been made through the upper end of the tibia, showing the growth completely surrounding the bone. Osseous deposit can be seen in radiating lines. The bone is infiltrated with growth.

The patient was a male, aged 19 years. Enlargement of the upper end of the tibia followed a slight blow 5 months previous to operation. Growth was rapid, and attended with much pain. Three weeks previously the whole leg became œdematous. Amputation through the middle of the thigh was performed Dec. 4, 1903. The patient died in Nov., 1904, from sarcoma of the lung.

M.N. 3130. Mr. Jones.

FEMUR: Periosteal Sarcoma. 97·3(87):65·1

The specimen shows a sarcoma growing from the anterior and inner aspects of the lower end of the left femur. The bone and tumour have been divided somewhat obliquely, and on the cut surface it is seen, first, that the tumour is composed of a comparatively soft mass; secondly, that the compact bone at its base is somewhat eroded; thirdly, that on the surface of bone at its margin a

layer of new bone has been laid down from the periosteum; fourthly that the growth has invaded the shaft, causing sclerosis of the bone, and tumour growth in the medullary cavity for a considerable distance. The epiphyseal line is well-defined and forms the lower limit of the growth.

Microscopic examination shows that the tumour is a round-celled sarcoma.

The patient was a youth, aged 17 years, who had noticed pain and swelling just above the knee for 3 months. The thigh was amputated May 15, 1884. The patient made a good recovery.

M.N. 3184. Mr. Wright.

FEMUR; Endosteal Sarcoma. 97·3:65·4

The lower half of the femur has been bisected. The inner condyle is the site of an expanding central sarcoma. The bone has been largely eaten away, but the outer surface of the tumour still shows a thin layer of it. The tissue of the tumour is of a soft uniform cellular structure, and displays an outer zone of more recent growth, and a central mass of a grey necrotic appearance with extensive hæmorrhage and some softening. The whole structure has the typical maroon colour of a myeloid sarcoma. The articular cartilage of the femur remains intact.

The patient was a woman, aged 27 years. A swelling on the inner side of the left knee was first noticed 12 months previously. The swelling gradually increased in size, but was only slightly painful. A large swelling was found over the inner condyle of the femur. A skiagram showed the expansion of the inner condyle. The thigh was amputated Nov. 17, 1904.

M.N. 3188. Mr. Wright.

TIBIA: Endosteal Sarcoma. 97·6:65·4

The specimen consists of the upper third of the tibia and fibula, through which a vertical coronal section has been made to show the structure of an expanding central sarcoma of a soft cellular texture and of the maroon colour characteristic of this type of tumour. The bone has been extensively eaten away, but the joint is not invaded.

M.N. 3192. D.B. 4412.

TIBIA: Periosteal Sarcoma. 97·6:65·3

From the upper third of the tibia a periosteal sarcoma is seen growing, and a vertical sagittal section of the specimen has been made. The tumour forms a large rounded mass on the posterior aspect of the bone. Where it springs from the bone, formation of condensed bone has extensively taken place, filling up the cancellous tissue and extending by irregular processes into the substance of the tumour. On the inner aspect this condensed bone is surrounded by a zone of red marrow, and the outer surface is covered by a layer of cellular sarcomatous tissue, somewhat soft, and with a tendency to hæmorrhage. The joint surface is not affected.

M.N. 3208. D.B. 4433. Mr. Platt.

FEMUR; Endosteal Sarcoma. 97·3:65·4
97·3:21·6

In the lower third of the femur there is a large, rounded swelling, which is especially prominent on the inner aspect. The swelling is due to a sarcoma which has expanded the end of the bone, and has completely destroyed the cancellous tissue and replaced it by large friable masses of growth. The tumour tissue is unusually free from hæmorrhage. Spontaneous fracture of the bone has occurred. The articular cartilages are not destroyed.

Microscopically the specimen is a spindle-celled sarcoma. The section examined contained a number of large cells of the myeloid variety.

The patient was a woman aged 58 years. In September, 1903, she first noticed pain and swelling of the left knee. The swelling extended for 4 or 5 in. above the level of the joint. The leg was amputated through the middle of the thigh on Feb. 27, 1904. The knee-joint contained some blood-stained serous fluid.

M.N. 3418. D.B. 1234. Dr. T. Smith.

TIBIA: Osteo-Sarcoma. 97·6 (87) : 65·1 (63·4)
97·3 : 41

On the anterior surface of the tibia, near the upper end, there is a large, rounded tumour, the central and upper part of which is composed of partly ossified tissue, while beyond the limits of this, there is a zone of tissue which is comparatively soft and free from calcareous salts. The knee-joint is not invaded, and the femur shows marked osteo-porosis and atrophy from disuse. Under the lower border of the central ossified mass of the tumour, a large cavity has formed, communicating with the surface. The inflammation has, however, destroyed the soft parts of the tumour, while the bony centre has proved resistant.

Microscopic examination shows the growth to be of the round-celled variety.

M.N. 3539. D.B. 4627.

FEMUR; Myeloid Sarcoma. 97·3 : 65·4

The lower half of the femur has been bisected and the lower end of the bone, but especially the outer condyle, is occupied by a central sarcoma composed of soft tissue, showing areas of softening and hæmorrhage, and showing also extension along the intermuscular fascia.

Microscopically the tumour tissue is a mycloid sarcoma.

M.N. 3596.

FEMUR: Periosteal Sarcoma. 97·3 : 65

This specimen is a periosteal sarcoma of unusually large size from the lower end of the femur.

M.N. 3635. D.B. 1346. Nov., 1891. Dr. Martin.

TIBIA: Periosteal Sarcoma. 97·6 (87) : 65·3

The specimen consists of one-half of the lower part of the leg, the ankle, and the foot (left). A large rounded tumour, springing from the tibia, has formed a somewhat flat projection on the inner side of the leg above the internal malleolus; but the new tissue surrounds the whole circumference of

the bone. The lower end of the tibia shows marked sclerosis, leading to obliteration of the medullary cavity, and the formation of a layer of dense new bone on the posterior surface. The anterior surface of the bone at this point is irregularly excavated. The tumour tissue is of a soft uniform friable structure, and it shows in some areas a tendency to hæmorrhage.

Microscopic examination shows a sarcomatous tissue composed of round and spindle cells with a few giant cells scattered about, and a large amount of intercellular matrix.

M.N. 3652. D.B. 3027. Feb. 13, 1895. Mr. C. E. Richmond.

FEMUR: Secondary Carcinoma. Spontaneous Fracture. 97·3:66·3
97·3:21·6

The upper part of the shaft shows a transverse fracture with marked displacement of the lower fragment. The medullary cavity of the upper fragment is occupied by a cancerous growth which has filled the lumen, and has, to a large extent, destroyed the compact bone on the inner aspect at this level.

Microscopically, it has the structure of a glandular carcinoma. The primary growth was in the mamma.

M.N. 3742.

FIBULA: Sarcoma. 97·6:65·1

The transverse section of the tibia can be easily made out; but the fibula has been to a large extent disintegrated, and remains only as a gritty nodule situated in the midst of the mass of sarcoma which has grown amongst the muscles. The tumour probably commenced in the fibula. It is composed of moderately large cells, arranged in cylinders or columns, but there are no giant-cells.

M.N. 3771. D.B. 4695. Oct. 3, 1905. Mr. Wright.

FEMUR: Sarcoma. 97·3:65·1

The specimen is one-half of the lower part of the thigh. On the cut surface a large sarcoma is seen. The growth has extensively invaded the bone, and destroyed it for a distance of several inches. It has also destroyed and replaced the soft structures, and has fungated through the skin in two places. The tumour mass is made up of a very friable tissue, into which numerous hæmorrhages have taken place.

Microscopically it is a round-celled sarcoma.

M.N. 3776. D.B. 4811. Jan. 29, 1906. Mr. Roberts.

FEMUR: Sarcoma. 97·3:65·2

The specimen consists of a thick section through the thigh, just above the knee. The centre of the specimen is occupied by a mass springing from the side of the bone, a large part of which it has replaced. It is composed of soft, friable material, partly necrotic, and partly myxomatous. The muscles have been compressed and pushed aside by the growth of the tumour.

Microscopically the tumour is a sarcoma composed of spindle cells, arranged here and there as fasciculi, to a large extent in a state of necrosis. Through the tissue are a few cells with large nuclei, but there are no giant-cells.

The patient was a man, aged 48 years. The growth was of 18 months' duration, but there had been very little pain. The thigh was amputated Jan. 23, 1906.

BONES AND JOINTS OF THE LOWER EXTREMITY: GENERAL NUTRITIONAL DISEASES.

M.N. 421.

FEMUR (RIGHT): Curvature, Rickets. 97·3:86·1
97·3:24

The shaft presents a marked antero-posterior curvature. The circumference of the shaft is much smaller than normal as compared with the length, thus causing the upper, and especially the lower, end to appear very broad. The trochanter minor appears to be unusually large and prominent.

M.N. 423.

FEMUR (RIGHT): Atrophy, Chronic Rheumatoid Arthritis. 97·3:85·2
97·3:55·3

The bone, which is that of an adult, is normal except at its upper end. Here the head is entirely worn away, leaving an irregularly-rounded surface with osteophytic deposit round its edges, and coated by a thin layer of enamel-like bone.

M.N. 426.

TIBIA, FIBULA (RIGHT): Curvature, Rickets. 97·6:86·1
97·6:24

The bones have thin shafts, and present a curvature convex inwards.

M.N. 518. Mr. Turner.

TIBIA, FIBULA, TARSUS, METATARSUS and PHALANGES: Rickets. 97·6:86·1
97·6:24

The tibia and fibula show the characteristic curved deformity of rickets. The concavity is directed outwards.

M.N. 640. Mr. Turner.

TIBIA, FIBULA (RIGHT): Periostitis, Formative Ostitis, Anchylosis, Osteo-Arthritis. 97·6:85·2 97·6:55·1 97·6:24·1

The bones are much increased in weight. The normal curves of the tibia are slightly accentuated, and to a greater degree those of the fibula. The whole of the tibial shaft is covered by a thin periosteal new bone formation, which is spongy on its internal aspect, but externally shows fine grooves. The fibula is covered by a deposit similar to that on the tibia, and presents two fusiform swellings on the shaft on its lower portion, measuring about $2\frac{1}{2}$ in. each in length. The tibia and fibula are firmly anchylosed together at their upper end, for a distance of $2\frac{1}{2}$ in. At the lower part of the anchylosis there is a mass of bone forming a small prominence.

M.N. 647.

OS INNOMINATUM (LEFT): Rarefying Ostitis, Formative Periostitis. 97·1:85·2 97·1:55·1 97·1:55·2

The bone is much lighter than normal. The acetabulum is considerably deformed by a mass of new bone deposited on its iliac and ischial portions. The pubic portion is pitted. About its middle, at the deepest part, is a small round excavation. Some osteophytic bone is deposited on the ilium and ischium around the rim. The perforations for blood-vessels in the whole of the bone are larger and more numerous than normal.

M.N. 649.

OS INNOMINATUM (RIGHT): Formative Periostitis and Ostitis, Osteo-Arthritis. 97·1:85·2 97·1:55·1 97·1:24

The whole of the original acetabular articular surface is destroyed. The acetabulum is now oval and has a very prominent rim around which is arranged a row of osteophytic nodules. There is very slight eburnation of the acetabular surface. Some new bone has been deposited on the gluteal surface in small irregular patches. The anterior spines of the ilium form an almost continuous sharp edge.

M.N. 650.

OS INNOMINATUM, FEMUR (LEFT): Formative Periostitis, Rarefying Ostitis, Osteo-Arthritis. 97·1:85·2
97·1:55·1
97·3:55·2
97·3:55·1

The specimen includes the os innominatum, part of the ilium, and the upper third of the femur. The acetabular rim is greatly increased in height and thickness, and is made continuous all round by a mass of osteophytic bone bridging the cotyloid notch, leaving, however, a tunnel below. The anterior spines of the ilium and all the prominent points and borders of the pubis and ischium are roughened by irregular new formation of bone. The head of the femur is enlarged by osteophytic growth at the margin of the head. The alteration in shape of the head and acetabulum prevent the head from being separated from the os innominatum, although it allows considerable movement. Above, the articular surface of the head is much rarefied, but is covered by a compact layer of bone which is riddled with holes, and which is somewhat eburnated; below and behind the compact layer is continuous. The tips of the two trochanters are thickened and have a flattened end because in flexion of the joint they come in contact with the acetabular border. The upper end of the spiral line and the insertion of the gluteus maximus are roughened by new bone deposit.

M.N. 651.

OS INNOMINATUM, FEMUR (RIGHT): Formative Periostitis and Ostitis, Rarefying Ostitis, Osteo-Arthritis. 97·2:85·2
97·1:55·2
97·1:55·1
97·3:55·1
97·3:55·2

The acetabular portion of the os innominatum and the upper fourth of the femur have been preserved. The acetabulum is increased in size, and its lips are thickened and much heightened, and are made continuous all round by means of an osteophytic mass filling the cotyloid notch, but leaving a tunnel below. The upper half of the inner surface is eburnated. A large portion of the head has been absorbed, but it is surrounded at its margin by a thick deposit, especially below, where there is a very large mass of osteophytic bone. The upper half of the surface of the mass representing the head is eburnated.

M.N. 653.

FEMUR (LEFT); Rarefying Ostitis, Formative Periostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1
97·3:55·2

The upper end of the femur has been bisected. The greater part of the original head has been absorbed, and is replaced by a rounded mass about the size of the head, formed by the upper end of the neck, the remains of the head and a mass of osteophytic bone curving downwards and overlapping the lower aspect of the neck. The upper surface of the mass is eburnated, but perforated by numerous holes. On the posterior surface of the neck is a prominent osteophyte. The lesser trochanter is thickened by new bone, and presents a flattened top.

M.N. 654.

FEMUR (RIGHT): Formative Periostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1
97·3:55·2

The upper third of the femur has been preserved. The whole of the head has been absorbed and is represented by a mushroom-like mass on which are exposed anteriorly wide cancellous spaces. Some osteophytic deposit has been laid on the upper end of the shaft.

M.N. 655.

FEMUR (LEFT); Rarefying Ostitis, Formative Periostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·2
97·3:55·1

Some portion of the head has been absorbed. On the upper surface over a circular area very large cancellous spaces are opened. The exposed ends of the trabeculæ are eburnated. A spongy deposit of osteophytic bone has been laid down around the margin of the head.

M.N. 656. Mr. Turner.

FEMUR: Formative Periostitis and Ostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1

The bone is increased in weight. The antero-posterior diameter of the shaft is diminished in the upper and lower thirds. The upper end of the spiral line anteriorly forms a raised ridge. The whole of the original head has been absorbed, and is represented by a thickened proximal end of the neck and a mass of osteophytic bone below and behind, which have a covering of dense bone. The mass has a depressed area in the middle of the articular surface.

M.N. 657.

FEMUR (RIGHT): Rarefying Ostitis, Eburnation, Osteo-Arthritis. 97·3:85·2
97·3:55·1
97·3:55·2

A large portion of the head has been absorbed especially anteriorly, and superiorly, where it presents an almost circular area of thin, compact, eburnated bone, which is perforated by numerous holes leading into the widened cancellous spaces. The margin of the articular surface is thickened by osteophytic bone. The whole bone is lighter than normal.

M.N. 658.

FEMUR (RIGHT): Formative Periostitis, Condensing Ostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1
97·3:55·2

The antero-posterior curvature of the shaft is somewhat exaggerated and the linea aspera is thicker and more prominent than normal. Some portion of the head has been absorbed causing exposure over an oval area, anteriorly, of the cancellous tissue. The superficial layer is dense, especially over a small area where it has a porcellaneous appearance. At the insertion of the ligamentum teres and around the margin of the head are osteophytic outgrowths.

M.N. 659.

FEMUR (RIGHT): Rarefying Ostitis, Formative Periostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1
97·3:55·2

The antero-posterior curve of the shaft is exaggerated. The linea aspera is more prominent than normal. The upper portion of the head has been absorbed. Over a large circular area the cancellous tissue is exposed and covered here and there by a thin layer of more compact tissue. At the lower margin of the head is an elongated mass of osteophytic bone.

M.N. 660.

FEMUR (LEFT): Formative Periostitis and Ostitis, Condensing Ostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1
97·3:55·2

The curvature of the shaft is somewhat exaggerated in the upper half anteriorly. Some portion of the head has been absorbed and the cancellous tissue is exposed. The most superficial layer is sclerosed, and at one part has a dense porcellaneous appearance. At the insertion of the ligamentum teres and around the margin of the head is a deposit of osteophytic bone.

M.N. 661.

FEMUR: Formative Ostitis, Osteo-Arthritis. 97·3:85·2
97·3:55·1

The margin of the articular surface is markedly lipped, and the patellar portion is separated from the tibial by a ridge of osteophytic bone.

M.N. 662. Mr. Bradley.

KNEE JOINT: Osteo-Arthritis. 97·4:85·2

The knee-joint has been opened anteriorly. The lower end of the femur has a square and angular form resulting from the deformity which is due to the disappearance of the cartilage, and the erosion of bone. Apart from the surfaces of friction the cartilage shows roughening and pitting. The synovial membrane is very much thickened, and presents a tuberculated surface. The head of the tibia is smooth. The inner aspect of the patella is much deformed, and its contour greatly modified.

M.N. 665. Mr. Bradley.

KNEE JOINT: Gouty Arthritis. 97·4:85·3
97·4:55·3

The joint cavity has been laid open. The articular surfaces show marked superficial erosion and roughening. The layer of cartilage has to a large extent been destroyed, especially that covering the articular surfaces of the tibia. The patella has also been eroded, and its surface is very rough. There is little sign of overgrowth in the tissue surrounding the joint, but the excavation of the articular surfaces of the tibia gives an appearance of hypertrophy of the fibrous tissue round their margins.

M.N. 666. Mr. Jones.

KNEE JOINT: Osteo-Arthritis. 97·4:85·2

The knee-joint is exposed anteriorly and the patella is reflected upwards. The articular cartilages are roughened, and slightly shreddy, and here and there are seen also shallow erosions. The synovial membrane is rough, and thickened throughout. A prominent ridge of cartilage surrounds the articular surface, especially well marked on the inner condyle of the femur.

M.N. 671. Mr. Turner.

TIBIA, FIBULA, (LEFT): Curvature, Rickets. 97·6:86·1
97·6:24·1

The tibia presents a very marked curvature convex forwards and inwards so that the lower articular surface faces backwards and outwards, and on the internal surface are three swellings, one immediately above the ankle and two others nearly half way up the shaft. The fibula is more acutely curved and is anchylosed to the tibia 4 c.m. above the ankle.

M.N. 672. Mr. Turner.

TIBIA (RIGHT): Curvature, Fracture, Rickets. 97·6:86·1
97·6:24

The ends of the bones are enlarged. A short distance below the middle of the shaft is a fusiform swelling, the site of a healed fracture. At this point the lower part of the bone is bent on the upper at an angle of about 150°, opening backwards and slightly outwards. Just above the lower end the bone is again bent, so that the lower articular surface looks backwards and outwards. On the anterior aspect of the lower bend is a prominent spicule of bone.

M.N. 679.

FEMUR OF AN INFANT: Rickets. 97·3:86·1
97·3:41·2

There is almost complete absence of ossification of the lower epiphysis of the femur.

M.N. 680 A & B.

FEMUR, PATELLA, TIBIA, FIBULA, TARSUS, METATARSUS, PHALANGES (R. and L.): Curvature. Rickets. 97:86·1
97:24

The specimen includes the femur, patella, tibia, fibula, tarsus, 4 outer metatarsals, phalanges of 2nd, 3rd, and 4th toes on the right side, and the femur, patella, tibia, fibula, tarsus, and 4 outer metatarsals on the left side. The femora have a marked general antero-posterior curvature convex forwards. The shaft is flattened laterally and the linea aspera is continued into a knife-like edge in its upper two-thirds, so that the antero-posterior diameter is more than twice the transverse. The ends of the long bones are enlarged. The tibiæ have an antero-posterior curvature, and in the upper half a slight curve convex inwards, and in the lower outwards. There is also slight rotation outwards of the lower end. They are somewhat flattened laterally. The fibulæ present a curve convex inwards and forwards, and are much flattened. The foot is acutely flexed on the tibia, and the plantar arch is depressed.

M.N. 681. Mr. Turner.

FEMUR (RIGHT) : Rickets. 97 · 3 : 86 · 1
97 · 3 : 24

The bone shows the characteristic deformity of rickets. There is a well-marked curvation forwards of the shaft, and it is also flattened from side to side. The linea aspera is very well marked and sharp.

M.N. 682.

FEMUR (RIGHT) ; Rickets. 97 · 3 : 86 · 1
97 · 3 : 24

The upper and lower ends of the bone are enlarged. The normal antero-posterior curve of the shaft is exaggerated, and the linea aspera is very prominent. The shaft is also slightly curved outwards above, and inwards below.

M.N. 683.

FEMUR (RIGHT) : Curvature, Rickets. 97 · 3 : 86 · 1
97 · 3 : 24

The bone is shorter than normal, and presents a curvature convex forwards and inwards which is very marked about the middle of the shaft. The lower end of the shaft is rotated outwards on the upper end. The prominent inner border is thickened; at the upper end of the insertion of the gluteus maximus is a raised bony mass.

M.N. 684.

FEMUR (RIGHT) : Curvature, Rickets. 97 · 3 : 86 · 1
97 · 3 : 24

The bone is considerably deformed by a rachitic curvature, and a healed oblique fracture of the middle of the shaft, the lower half of which forms with the upper half an angle opening backwards and somewhat outwards. The lower half is also slightly rotated outwards. The anterior surface presents a median longitudinal groove. The linea aspera is prominent.

M.N. 685.

FEMUR (LEFT): Curvature, Rickets. 97·3:86·1
97·3:24

The upper end is somewhat, and the external condyle considerably, enlarged. The shaft is short, and presents a marked general anterior curve. The antero-posterior diameter of the shaft is greatly increased. The compact tissue of the shaft forms only a thin layer anteriorly, but is very much thicker posteriorly.

M.N. 686.

FEMUR: Curvature, Rickets. 97·3:86·1
97·3:24

A short distance above the lower end the shaft is thickened, and bent with the convexity forwards.

M.N. 687.

TIBIA (RIGHT); Curvature, Rickets. 97·6:86·1
97·6:24

The shaft presents an antero-posterior curvature, and there is a slight curvature inwards of the upper two-thirds. The anterior border is sharp and prominent.

M.N. 688B.

TIBIA (LEFT): Curvature, Rickets. 97·6:86·1
97·6:24

The bone presents a marked curvature convex inwards. The posterior part of the internal surface is rounded and thickened.

M.N. 689A.

TIBIA (LEFT): Curvature, Rickets. 97·6:86·1
97·6:24

The bone presents a curvature outwards and forwards. The internal surface is more than usually convex from before backwards, and the external is hollowed. The postero-internal border is rounded.

M.N. 689B.

TIBIA (RIGHT); Curvature, Rickets. 97·6:86·1
97·6:24

The bone is similar to the foregoing specimen.

M.N. 690. Mr. TURNER.

FIBULA (RIGHT): Curvature, Rickets. 97·6:86·1
97·6:24

The lower two-thirds of the bone is considerably thickened. The lower half of the shaft is acutely curved so that the lower end of the bone forms an angle less than a right angle with the upper end.

M.N. 692.

TIBIA and FIBULA of YOUNG CHILD: Rickets 97·6:86·1
97·6:41
97·6:24

The shafts of the bones are much curved in an antero-posterior direction. The compact bone has almost entirely disappeared, and the cancellous bone is represented by an exceedingly fine sponge-like tissue. The epiphyseal cartilage is apparently normal, and the centre of ossification in the upper epiphysis of the tibia is replaced by a cavity.

M.N. 773.

FEMUR: Osteo-Malacia, Spontaneous Fracture. 97·3·86·2
97·3:41
97·3:21

The femur is greatly atrophied. Both cancellous and compact bone have become very much wasted, and a spontaneous fracture has occurred in the shaft, leaving the fragments of bone at an obtuse angle with each other.

M.N. 781.

UPPER THIRD of the RIGHT FEMUR: Chronic Rheumatic Arthritis. 97·3:85·1 97·3:24 97·3:55·2

There is marked erosion of the head of the femur, and deformity of the bone. The neck has come to be almost in the same vertical line as the shaft, and is much less rounded in form than normal. Between the posterior surface of the neck and upper internal angle of the great trochanter a bridge of bone has formed. The edges of the articular surface of the head project round the circumference in a lip-like form. Under this projection the bone of the neck shows some widening of the Haversian canals.

M.N. 838. May, 1885.

KNEE-JOINT: Rheumatoid Arthritis. 97·4:85·2 85:62

The specimen includes a longitudinal antero-posterior section, through the greater part of the shaft, and a transverse section through the comparatively smooth. The patches of cartilage which remain are whitened and fibrous in appearance, and at some points there are minute, irregular, nodular projections on its surface. There is also some lipping round the edge of the articular surface.

M.N. 2755. D.B. 3988. April 19, 1902. Dr. Radcliffe.

FEMUR (SHAFT): Osteo-Malacia. 97·3:87·2

The specimen includes a longitudinal antero-posterior section, through the greater part of the length of the shaft, and a transverse section through the upper part of the shaft. The dense bone of the shaft is replaced by soft tissue which had the appearance and feeling of decalcified bone or fibrous tissue. In many parts there remains enough calcareous matter to support the soft tissue. Even in those parts the loss of calcareous matter must have been considerable, for many of the calcareous parts feel like thin plates which are easily broken between the fingers. The marrow is abundant, pultaceous-looking, and of a reddish buff-yellow colour.

Microscopically the periosteum is composed entirely of fully formed fibrous

tissue, and there is no evidence of any osteogenetic process, and no distinct layer of osteoblasts. The dense bone of the shaft shows Haversian canals replaced by large, irregular cavities, containing large vessels. The bony walls of the Haversian canals have become incomplete, and are replaced by bony plates, spicules, or nodules, in which the original lamellar arrangement may in places be recognised. These bony masses are partly decalcified, but in the centre of some of them there is calcareous matter (a calcareous impregnation), indicated by the deep colour which they take by staining with hæmatoxylin. On the surface of several of these incompletely decalcified trabeculæ there are numerous osteoclasts. Between the trabeculæ and the vessels there is a variable amount of connective tissue, fairly rich in cells and with a loose fibrillated matrix. The yellow marrow is infiltrated with small cells variable in size, the morphological, and chemical characters of which are difficult to ascertain on account of the mode of preservation. These small cells form numerous islands or tracts among the fat cells, many of which have disappeared or are undergoing absorption.

History (abstracted from Dr. F. Radcliffe's clinical notes):—Patient F., æt. 56. Had lived all her life near Oldham. Mother of a large family. Last pregnancy 13 years before death. Patient noticed 12 years ago weakness of back, two years after this knees began to swell, there were pains in the bones and feeling of coldness in the knees. There was inability to kneel and tendency to fall. Nine years previous to death it was noticed that the curve of the spine on the lower lumbar region became exaggerated and the back more hollow. Eight years before death the trunk appeared to get shorter. According to her daughter, she "wobbled" in her walk. The walk became more difficult and patient could not get either up or downstairs. Last menstruation 6 years before death. She suffered from mental worry, severe and prolonged attacks of vomiting, severe pain in various bones, and passage of alkaline urine loaded with triple phosphates. The femora gradually became curved, and a few months later the same change occurred in other bones of the legs. After this the patient was bed-fast. Her arms at that time were 2 in. shorter than when she was well. A fracture of the humerus then occurred, which was followed by rapid union. Three years before death she had become much worse, and her height, which was originally 5 ft. 3 in., had been reduced to 4 ft. 7 in. She could not lie flat in bed but used to sit up, with one foot across the opposite thigh. About 1 month before death there was marked hyperæsthesia down the whole of the right leg, the same phenomenon being noticed 2 days after in the left leg, possibly due to pressure of the vertebræ upon the spinal cord. Patient then became rapidly weaker; every movement was extremely painful.

M.N. 2765. D.B. 3375. Messrs. Thorburn and Westmacott.

FEMUR, PATELLA, TIBIA, and FIBULA: Hypertrophic Pulmonary Osteo-Arthropathy. 97·3:86·4 97·5:86·4 97·6:86·4

The shaft of the femur is covered with a friable sheath of new bone; its medullary cavity is somewhat encroached upon by a loose cancellous tissue. The patella shows on its anterior aspect a sheath of newly-formed bone. The tibia and fibula present extensive deposits of subperiosteal new bone formation. A rough bony prominence at the site of the upper epiphyseal cartilage of the tibia was due to a former localised inflammation; there were scars in the skin over this area. (See humerus M.N. 2763—96·4:86·4, bones of the hand M.N. 2764—96·8:86·4, bones of the foot M.N. 2766—97·8:86·4.)

M.N. 2766. 1896. Messrs. Thorburn and Westmacott.

BONES OF FOOT: Hypertrophic Pulmonary Osteo-Arthropathy. 97·8:86·4

The tarsal, metatarsal and phalangeal bones present a subperiosteal sheath of new bone, which is least marked on the proximal phalanges. Small erosions of articular cartilage were found in all the joints. (See humerus M.N. 2763—96·4:86·4, bones of the hand M.N. 2764—96·8:86·4, femur M.N. 2765—97·3:86·4.)

PELVIS: MECHANICAL LESIONS.

M.N. 747.

OS INNOMINATUM, SACRUM, COCCYX: Fracture. 98:21·1
98:85·2

A well-united transverse fracture of the ramus of the ischium, and an united oblique fracture of the body and superior ramus of the pubis. The bones of the pelvis present osteophytes of osteo-arthritis.

PELVIS: RETROGRESSIVE DISORDERS.

M.N. 941.

VERTEBRÆ, SACRUM, COCCYX, OS INNOMINATUM: Atrophy. 98:41

The specimen includes the 4th and 5th lumbar vertebræ and the pelvis. The bones are much lighter than normal, and present numerous excavations of various sizes, some of which perforate the whole thickness of the bone. A large excavation is formed by the destruction of the upper part of the sacrum posteriorly on the left side.

M.N. 942.

VERTEBRÆ, SACRUM, COCCYX, OS INNOMINATUM: Atrophy. 98:41

The specimen includes the last two lumbar vertebræ and the pelvis. The bones are exceedingly light, and present several excavations. On the pelvic aspect of the ischium are two almost circular depressions of the compact tissue, which are separated by a fissure from the surrounding compact layer. Some of the lateral parts of the sacrum are destroyed.

PELVIS: BENIGN TUMOURS.

M.N. 721E. Prof. YOUNG.

PELVIS: Exostosis, Anchylosis. 98:63·4

The ilia are greatly thickened by outgrowth of bone on the gluteal surface, especially near the iliac crest. Immediately internal to the left anterior inferior spine is a pedunculated process of bone. On the internal surface of the spine of the ischium is another prominence. Projecting from the posterior surface of the symphysis and uniting the pubes is an irregular mass of bone. (See scapula M.N. 721A—96·2:63·4, and femur M.N. 721F—97·3:63·4.)

PELVIS: GENERAL NUTRITIONAL DISEASES.

M.N. 694.

VERTEBRÆ, SACRUM, OS INNOMINATUM, COCCYX: Osteo-Malacia. 98 : 86 · 2 98 : 24

The lumbar vertebræ and sacrum are greatly depressed downwards and forwards into the pelvis. The two vertebræ are rotated somewhat to the left. The sacrum is acutely curved on itself so that the tip of the coccyx is only 1·3 c.m. from the 5th lumbar body. The alæ of the ilia are doubled up with the concavity forward. The ileo-pectineal eminences are raised. Owing to the bending of the rami of the pubes and ischia the acetabula are approximated, and look much more forwards than normal. The tubera ischii lie very near together, and the rami of the ischia touch in the middle line. The surface of the bones is rough.

M.N. 695.

PELVIC BONES, VERTEBRÆ, OS INNOMINATUM, SACRUM, COCCYX: Osteo-Malacia. 98 : 86 · 2 98 : 24

The bodies of the vertebræ present a curvature convex to the right, and the spines a similar curve, but in a less degree. The bodies are diminished in thickness on the left side above. The pelvis is tri-radiate. The sacrum faces the right innominate bone, and it is acutely bent upon itself, throwing the tip considerably forwards. The alæ of the ilia are incurved. The ileo-pectineal eminences are raised, and the lower part of the venter ilii looks upwards and slightly backwards on the right side, and upwards, inwards, and forwards on the left. The tubera ischii are approximated, and the distance of the spines of the ischia from the sacrum is diminished. The right superior ramus of the pubis, and the ramus and body of the ischium are bent so that their concavity looks outwards, and the acetabula are approximated, and look more forwards than normal, especially on the right side. The pelvis is very small.

M.N. 696.

OS INNOMINATUM (RIGHT AND LEFT): Osteo-Malacia. 98 : 86 · 2
98 : 24

The specimen forms part of a typical rostrated malacosteon pelvis. The rami of the pubes and ischia are bent inwards, causing the acetabula to be approximated and to look forwards. The tubera ischii are much nearer together than normal. The pubic arch is narrowed. The ileo-pectineal eminence is raised above the general level of the brim. The upper parts of the alæ of the ilia are curved inwards.

M.N. 698.

VERTEBRÆ, PELVIS, FEMUR: Osteo-Malacia. 98 : 86 · 2
98 : 24

The specimen includes the 4th and 5th lumbar vertebræ, the sacrum, coccyx, ossa innominata and the upper ends of the femora. A triangular portion of the left ala ilii has been removed. The sacrum is depressed downwards and forwards, its longitudinal curvature is much increased, and the promontory is rotated forwards. The posterior parts of the ilia are folded over forwards, and the anterior part of the left ala is somewhat more vertical than the right. The bone in the centre of the left iliac fossa is very thin, and is perforated in several places. The ileo-pectineal eminences are slightly raised. The rami of the pubes are so bent that in the anterior two-thirds they are parallel and almost touch. The rami of the ischia are bent, and at their ischial ends are separated only by a distance of 2 m.m. The tubera ischii are approximated. The acetabula lie nearer together and look almost directly forwards.

M.N. 699.

PELVIS, VERTEBRÆ, FEMUR: Osteo-Malacia. 98 : 86 · 2
98 : 24

The sacrum is depressed downwards and forwards, and the promontory is somewhat rotated forwards on a transverse axis. The antero-posterior longitudinal curvature is increased. The iliac fossæ are rather more concave than normal. The rami of the pubes and ischia are bent so that the anterior two-thirds of the rami of the pubes are parallel, and the width of the pubic arch is diminished. The tubera ischii are somewhat approximated. The acetabula lie nearer together and look more than normally forwards.

REGIONAL AREAS.

REGIONAL AREAS: CONGENITAL ABNORMALITIES.

M.N. 3565. D.B. 2551. Mr. Thorburn.

FOOT: Maldevelopment. 09 : 12
97 · 8 : 12 · 2

The specimen consists of the anterior half of the left foot. The displacement of the small toe to a point some distance behind its normal situation is due to congenital aplasia of the metatarsus.

M.N. 3767. D.B. 4897. March 16, 1906. Mr. Roberts.

CERVICAL BRONCHIAL FISTULA. 03 : 12 · 3

This specimen was removed in an operation for the cure of a cervical bronchial fistula. The lumen of the fistula in the middle of the track is about the size of a goose quill; externally the orifice just admits a small probe, and internally the fistula ends blindly about a quarter of an inch from the pharynx. The wall is composed of a thin layer of unstriped muscular fibres, and is lined by mucous membrane.

The patient was a girl aged 14 years. The fistula opened externally at the anterior border of the sterno-mastoid muscle one inch above the sternum. The amount of discharge varied; frequently there was as much as half a teaspoonful during the day. It was of a muco-purulent character. The track was dissected out. The proximal end was attached to the posterior part of the lateral wall of the pharynx above the level of the tonsil. The wall was ligatured at its attachment to the pharynx. The track did not communicate with the cavity of the pharynx. Recovery was uneventful.

REGIONAL AREAS: MECHANICAL LESIONS.

M.N. 847.

ARM: Foreign Body. 06 : 28

Portion of a gun-barrel removed from the arm after repeated hæmorrhage had occurred.

M.N. 953. D.B. 863.

FOOT (LEFT): Talipes Equino-Varus. 09 : 24 · 1

The heel is raised so that the foot rests on the heads of the metatarsal bones and the toes. The anterior part of the foot is adducted and inverted. The arch of the instep is very much exaggerated. The head of the astragalus forms the most prominent part of the outer aspect of the foot, and the skin over it has been thickened. Below this, on the outer border of the foot, the skin is very much thickened round the site of an old sinus.

M.N. 954.

FOOT: Talipes Equino-Varus. 09 : 24 · 1

The heel is raised so that the foot rests on the heads of the metatarsal bones and the toes. The anterior part of the foot is adducted and inverted. The arch of the instep is very much exaggerated, and the head of the displaced astragalus forms the most prominent point of the outer aspect. The skin over it has been thickened to form a callosity. The first phalanges of the toes are hyperextended and the others flexed.

M.N. 2458. Mr. E. Lund.

ORBIT: Foreign Body. 02 · 3 : 28

Handle of a steel writing pen removed from the orbit of a child.

M.N. 3571.

FOOT: Talipes Equino-Varus. 09 : 24 · 1

The specimen consists of a foot in the position of talipes equino-varus. The heel is drawn up, and the anterior part of the foot is adducted and inverted. There is a marked projection on the dorsum of the foot due to the partial protrusion of the astragalus from the ankle-joint, and the skin in this position shows an extensive scar the result of ulceration from pressure. The sole of the foot shows a deep transverse crease in the skin just in front of the heel. The curves of the arch of the foot are much exaggerated.

M.N. 3768. D.B. 4580. Mr. Roberts.

FOOT: Talipes Equino-Varus 09 : 24 · 1

The specimen is a dissection made to show the structures involved in a case of talipes equino-varus. The heel is drawn up and the anterior part of the foot is adducted and inverted. The astragalus is partially extruded from the ankle-joint. The tendo Achilles and the tendons of the tibialis anticus, tibialis posticus, flexor longus digitorum and flexor longus hallucis are all contracted.

REGIONAL AREAS; THERMAL AND CHEMICAL LESIONS.

M.N. 1641. D.B. 959. Dr. Richmond.

HAND (LEFT): Elephantiasis following a Burn. 07;29·2

On the wrist, and lower part of the forearm is a broad ring of granulation tissue, the remains of a burn which had partially healed. The skin below this is smooth and atrophied, while that of the hand is very much wrinkled and folded. The subcutaneous tissue has been markedly thickened, giving the appearance of elephantiasis. The fingers are much incurved and the nails are very long. In each finger the terminal part of the nail is discoloured and separated from the more healthy-looking portion by a well-marked groove. A portion of tissue has been removed from the outer aspect of the palmar surface of the thumb. The swollen condition of the hand is due to œdema, resulting from the cicatrix which had obstructed the lymphatics in the forearm.

REGIONAL AREAS: RETROGRESSIVE DISORDERS.

M.N. 1648. Mr. Jones.

HAND: Gangrene. 07:44·5

The right hand is in a condition of gangrene following embolism of the subclavian artery. The skin over the fingers and a portion of the hand is discoloured and is becoming separated in flakes. There was no clear line of demarcation in this case; the period of separation of the gangrenous area was delayed. Amputation at the wrist was performed.

M.N. 1649. August, 1882. Mr. Hardie.

FOOT from a case of GANGRENE. 09:44·5

The skin of the foot is discoloured. It is shrivelled, dried, and apparently breaking up and separating in some places, especially over the heel and sole of the foot. The shallow linear markings seen on the surface are not lines of demarcation.

M.N. 1650. Mr. Jones.

FOOT: Gangrene. 09:44·5

This left foot was amputated by Symes' operation. The gangrene was due to the constriction of a rope round the ankle. The line of demarcation is very well marked at the upper border of the discoloured area. The toes and adjoining portion of the foot show the dry skin and discoloration characteristic of gangrene.

M.N. 1651.

LARGE TOE: Dry Gangrene. 09·3:44·5

The whole of the great toe is in a state of gangrene. It is shrunken and black and a deep line of demarcation has formed opposite the head of the metatarsus.

M.N. 2798. D.B. 1316. Oct. 14, 1891. Dr. Martin (Blackburn).

HAND: Traumatic Gangrene. 07:44·5

The specimen shows the hand and lower part of the forearm. The skin is dry and shrivelled; but this change is best marked over the fingers, where it is blackened, scaly, and where the subcutaneous tissues also have begun to shrivel up. There is a slight attempt to form a line of demarcation at the bases of the fingers, and there are gangrenous changes of a less degree over the palm.

M.N. 2980. Mr. Southam.

LEFT FOOT: Senile Gangrene. 09:44·5

The specimen shows the changes due to simple gangrene in an old person suffering from arterio-sclerosis. The gangrenous tissue is dark-coloured from extravasated blood, and is more or less clearly defined by a line of demarcation between it and the more healthy tissue. Beyond the line of demarcation, however, a number of extravasations can be made out. The great toe is less affected than the others, but the skin, especially over the dorsum, is somewhat discoloured.

The patient was a man, aged 68 years. Two years previously Chopart's amputation of the right foot had been performed for gangrene of the toes. Two months previously gangrene of the left foot commenced. The stump of the right foot was quite sound. All the blood-vessels were atheromatous, and no pulsation could be made out in the left posterior tibial and dorsalis pedis arteries. Chopart's amputation was performed, and the patient made an excellent recovery.

REGIONAL AREAS: SPECIFIC INFLAMMATIONS.

M.N. 1657. D.B. 2728. TRINIDAD COLLECTION.

HAND: Leprosy. 07 : 56 · 5
07 · 5 : 44

This right hand is that of a Pariah Hindu who had suffered from mixed leprosy for 8 years. The integument is peeling off in large scales. The hand is emaciated, but the skin of the finger stumps is folded and somewhat thickened. The median nerve is thickened. Spontaneous amputation has occured in the fingers and thumbs at the points between the first and second metacarpal bones. A superficial ulcer has formed at the end of each of the stumps.

Clinical note: "In this patient swarms of bacilli, which stained with magenta, were found in the larynx, also in a femoral gland, where they were generally diffused. A few were found in the spleen, but none in the nerves or viscera."

M.N. 1658. D.B. 2732. TRINIDAD COLLECTION.

HAND: Leprosy. 07 : 56 · 5
07 · 5 : 44

The specimen is the right hand of a patient who had suffered from leprosy for 13 years, and who died from cancer. The patient was a negress aged 70. Neither nerves nor viscera in this case showed the presence of bacilli. The hand is much emaciated. The skin is dry and parchment-like from atrophy. The fingers are incurvated and wasted, and spontaneous amputation has occurred in the fore-finger and the little finger. Atrophy and necrosis of the nails are seen in the other fingers. A small ulcer is present in the palm of the hand, between the 4th and 5th metacarpals.

M.N. 1659. D.B. 2726. TRINIDAD COLLECTION.

HAND: Leprosy. 07 : 56 · 5

This specimen is the left hand from a patient, a Hindu, aged 46, who suffered from mixed tuberculated and anæsthetic leprosy of 9 years' duration. Conspicuous on the dorsum of the hand, there is a gangrenous ulcer, with a black, irregular floor, surrounded by tissues showing inflammatory swelling. The superficial layers of the integument are peeling off, and have been almost completely separated over the palm of the hand also. Trophic ulcers are seen forming under the nails of the 1st, 2nd, and 3rd fingers, and atrophy and spontaneous amputation of the little finger also have taken place.

M.N. 1660. D.B. 2727.

HAND: Leprosy. 07 : 56 · 5
07 : 45

This specimen is the right hand of a patient, aged 60, a German living in Trinidad, who had suffered from anæsthetic leprosy for 12 years. The hand shows various trophic and other changes. The fingers show marked incurvation. The little finger is much atrophied and the nail has been reduced to a small fragment. Trophic ulcers have formed under the nail in other fingers also, and the nails which remain are thin and rounded from atrophy. Two trophic ulcers have formed in the palm of the hand and another in the fold of the thumb. Ulcers have formed also over the 2nd metacarpal joints of the 1st and 3rd fingers, and at the base of these ulcers the metacarpal bones are exposed. The skin of the hand has an atrophied parchment-like appearance; that of the palm is very much folded.

M.N. 1661. D.B. 2736. TRINIDAD COLLECTION.

HAND; Leprosy. 07 : 56 · 5
07 : 44

This left hand is from an old case of leprosy. The fingers and thumb have completely disappeared from spontaneous amputation. The skin over the end of the stump, and of a considerable portion of the hand, is white and parchment-like. An incision on the palmar surface exposes the median nerve, and this is seen to be thickened.

M.N. 1662. D.B. 2725. TRINIDAD COLLECTION.

FOOT: Leprosy. 09 : 56 · 5
09 : 44 · 5

The specimen is the foot of a Hindu, aged 49, who had suffered from anæsthetic leprosy for 3 years. The tissues of the foot are in a condition of gangrene, and the foot was amputated because of this. The superficial skin is peeling off in large flakes. The toes are much shortened from atrophy, and the nails are, to a large extent, destroyed. A perforating ulcer had occurred in the heel. There is a clinical note to the effect that this ulcer had nearly healed after the stretching of the sciatic nerve, which had been carried out a month before the foot was amputated.

M.N. 1663. D.B. 2734. TRINIDAD COLLECTION.

FINGER: Leprosy. 07 · 5 : 56 · 5
07 · 5 : 62

This specimen is an amputated finger (?) It shows a rounded bulbous extremity from which the nail has disappeared. The skin has been thickened, and has a hard smooth surface. The hypertrophy is due to the deposition of leprous tissue around the bone. A section of the extremity shows that the finer texture of the hypertrophied mass is that of caseous-looking tissue of uniform structure.

M.N. 1664. D.B. 2730. TRINIDAD COLLECTION.

TOE: Leprosy. 09 · 3 : 56 · 5
09 · 3 : 62
09 · 3 : 45

This specimen is the great toe of a Chinaman, who suffered from mixed tuberculated and anæsthetic leprosy. The toe is greatly hypertrophied from the formation of a soft grey tissue which surrounds the metatarsal bone. A deep perforating ulcer has formed in the skin near the line of amputation. The skin as a whole shows great thickening, and large flakes are peeling off the surface.

M.N. 1665. D.B. 2733. TRINIDAD COLLECTION.

TOE: Leprosy. 09·3:56·5
09·3:62

The specimen consists in a hypertrophied great toe from a Hindu, who suffered from anæsthetic leprosy. The nail of the toe has been in a large measure destroyed, and the body of the toe is greatly increased in size. A mesial incision has been made on the plantar surface, and shows that the bone has been replaced by a mass of tissue of a soft uniform texture easily cut by a knife.

M.N. 1666. D.B. 2735. TRINIDAD COLLECTION.

TOE: Leprosy. 09·4:56·5
09·4:55·2

The bone of the terminal phalanx has been attacked, and has been to a large extent destroyed. On the plantar surface of the 2nd phalanx a considerable amount of soft, friable, leprous material has been deposited, but the bone has not been destroyed. The skin is hard and rough on the surface, and the nail is much distorted.

M.N. 1667. D.B. 2729. TRINIDAD COLLECTION.

FOOT: Leprosy. 09:56·5
09:45

The foot is from a case of leprosy, and there is a very characteristic change exhibited, consisting in absorption of the bones and shortening of the toes without loss of the nails. The skin is very much thickened, especially that of the sole of the foot, and the surface layers are peeling off in large flakes. Near the small toe there is a cup-shaped perforating ulcer, the sides of which are composed of thickened integument. The nails, though present, are very much wasted and distorted. The cut surface shows the 3 cuneiform bones cut across, and the end of the 5th metatarsal. The cuneiform bones show a very open cancellous structure.

REGIONAL AREAS; HYPERTROPHY INCLUDING ELEPHANTIASIS.

M.N. 1640. D.B. 2952.

HAND AND WRIST: Elephantiasis. 07 (81) : 62
07 (82) : 62

The forearm has been apparently not much involved. The tissues of the wrist show marked hypertrophy of the skin, in the form of irregular masses, the surface of which has a fine papilliform structure. Below this the swelling increases in amount, but the epithelium is less hypertrophied, and the enlargement here seems to be chiefly due to thickening of the subcutaneous tissue. On the back of the hand the swelling reaches extremely large dimensions, and has the form of a group of large rounded tumour masses. The same change is seen on both the dorsal and palmar surface of the fingers; and the changes are least marked on the palm of the hand.

Microscopic examination of the cicatricial tissue shows an extremely atrophied layer of superficial epithelium, and, below this, scar tissue.

REGIONAL AREAS: BENIGN TUMOURS.

M.N. 1642. D.B. 580. Nov., 1887. Mr. Wright.

HEAD: Naevus of Face. 02(81):64·3

The skin of the face is darkly pigmented, and of a diffuse blue colour. It is also the site of a multitude of rounded tumours, many of which are dark blue in colour. The lower lip is enormously thickened and projects forwards in its whole extent as a heavy, rounded, blue mass of tissue. (See tongue M.N. 1788—31·2:64·3.)

M.N. 3516.

HAND; Multiple Fibromata. 07:63·2

The specimen shows the right hand. The whole of the fingers are studded with tumours, the skin over which shows a wrinkled appearance as if fluid contents had escaped from the subcutaneous spaces. Those on the fore-finger have the appearance of harder tissue.

On microscopic examination of one of the masses growing from the hypothenar eminence, the tissue is found to be essentially fibrous with a large amount of lymphangeiomatous dilatation.

M.N. 3665. D.B. 4450. Dr. Hutton.

ARM: Angeio-Fibroma. 06·1;64·4

The specimen consists in the right arm of a child. The shoulder-joint and upper part of the arm are surrounded by a huge, spongy mass of tumour. The tissues of the upper arm and forearm are also considerably increased in thickness. The fingers are irregularly developed. The index, middle, and ring fingers are relatively very markedly enlarged. The superficial layers of the skin epithelium show a tendency to degeneration. At the cut surface the tumour shows a spongy thickening of the subcutaneous tissue, while in the centre of the mass round the bone there are large spaces with smooth lining and thin walls.

Microscopic examination shows a matrix of fibro-cellular tissue with a large number of spaces lined by endothelium, which in some cases is more or less rounded, but in the majority of them it is flat-celled. The spaces are practically without contents.

REGIONAL AREAS: CYSTS.

M.N. 1638D.B. 2749. Mr. Whitehead.

CELLUL TISSUES OF THE NECK: Dermoid Cyst. 03(81):67·3

This sl cyst has a very rough internal surface.

On mscopic section of the wall it is found to be a dermoid, with a lining of smous epithelium under which there is a layer of very cellular granulatiossue.

M.N. 3005. Mr. Wright.

DERMOIIYST OF THE NECK. 03·3:67·3

The spmen is a dermoid cyst removed from the neck. It is thin-walled. On the innurface are seen two or three trabeculæ. In the wall there is a considerablaount of pigmentation from altered blood.

The pat was a man, aged 28 years. The cyst had been noticed for 2 years. Tlontents consisted of sebaceous matter and fine hairs. Operation was performMarch 24, 1903.

M.N. 3191. Dr. Prince Stallard.

SACRO-COYGEAL TUMOUR. 05·7:67·3

The spemn is a preparation to show the presence of a tumour springing from the reg of the coccyx, and forming a large rounded mass about the size of a fœtead. The section is taken through the symphysis pubis and vertebral coln, and shows the bladder, uterus and vagina and the greatly elongated rem situated in front of the growth. The skin covering the

tumour is parchment-like and discoloured from hæmorrhage. The structure of the tumour is partly solid, but here and there are cysts containing colloid material. The whole tumour is slightly discoloured from hæmorrhage.

Microscopically the tumour consists of small spaces lined by columnar epithelium. There is much stroma of very cellular nature. There are also several small nodules of cellular cartilage.

From a still-born child.

M.N. 3396. D.B. 2349. Dr. Harris.

CONGENITAL CYSTIC TUMOUR OF BACK (Sacral Region), from a Case of Spina Bifida. 05·8:67·3

Microscopic section shows a very much atrophied epithelial covering of the skin, a greatly thickened cutis vera in which are embedded numerous sweat glands, and below this a thick layer of fibrous tissue. The lining of the cyst shows no definite structure.

REGIONAL AREAS: OPERATIONS.

M.N. 980. Mr. Jones.

THIGH: Amputation Stump (Conical). 08·2:91

The preparation shows a portion of the shaft of the femur, with the soft tissues. The skin presents a prominence where it is adherent to the underlying bone.

M.N. 3144.

LEG: Amputation Stump. 08·4:91

The specimen is the stump of a leg after amputation by anterior and posterior flaps at the seat of election just below the tubercle of the tibia.

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